

A STUDY ABOUT ROLE OF HORTICULTURE IN THE DEVELOPMENT OF ECONOMY OF JAMMU AND KASHMIR.

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Abstract:

Horticulture occupies very important position in the predominantly agricultural economy of western Himalaya, among all the fruits grown in the Kashmir. Horticultural sector contributes immensely to strengthen the financial condition of Jammu and Kashmir. Horticulture is the mainstay of the economy in Kashmir with 2.3 million people associated with the sector and 237000 hectares of land in valley under fruit cultivation. This is a core sector of Jammu and Kashmir agriculture. Around 20 per cent area of the state is under horticultural crops. Horticultural sector contributes around 5000 crores to the annual income of the state of Jammu and Kashmir. Among the horticultural crops in the state apple occupies the predominant position constituting around 45 per cent of the total area under fruit crops. This sector contributes significantly to the economic and ecological development, employment generation, export and nutritional requirement of the people of state. Apples are most widely planted and are commercially the most important fruit crop. The cultivation of apple crop in Jammu and Kashmir shows particular interest for a number of reasons. In terms of both area and production, apple is very beneficial fruit crop. Apple is an extremely important source of nutritive diet, this provides a major source of income and employment in Jammu and Kashmir.

Key words: Economics, Horticulture, production, Development, Jammu & Kashmir.

INTRODUCTION

Jammu & Kashmir is home to some world famous varieties of fruits, dry fruits, honey and saffron. Horticulture is one of the most vibrant sectors for the state economy. Horticulture is the backbone of Jammu Kashmir's economy with a yearly turnover of Rs.1200 Crores. It provides direct and indirect employment to about 23 lakh people and has potential for further growth. Keeping this in view the state government has declared horticulture a thrust area and is taking a number of steps to boost it. Almost a century ago in the words of Sir Walter Lawrence, the European settlement commissioner of erstwhile Maharaja of Kashmir "Kashmir is the country of fruits, and perhaps no country has greater ambience for horticulture; as indigenous apple, pear, vine, mulberry, walnut, hazel, peach, apricot, cherry, gooseberry, currant, and strawberry can come into possession without much trouble in most parts of the valley". If we analyze the sector now as almost 100 years have gone by, that definition begs a number of questions. Kashmir is not home now to that diverse and abounding fruit. The quality of fruit has diminished. In quantitative aspects the production might have gone up but the aroma, taste and size of fruit and the number of apples per plant has diminished. In other words the production might have escalated in the recent years but the productivity has abbreviated. The quantity of adjunct fruits has diminished. There is reduction in the juice concentrates, jams, jellies and marmalades. The prime reason for a fall in the number of processed fruits is the mismanagement of the sector. The horticulture sector is completely unorganized as a result of which the processing food industry which was once functional in the north of Kashmir is no more functional and not only that no steps are taken for future as well. If the industry is taken care of it can be a great source of employment and revenue generation and hence will help to drive the economy. The present paper aims to bridge the gap between what had been said and what was few decades ago and now. A lot has changed from then and Kashmiri fruit is a lack-luster fruit now. According to the state's horticulture department, around 1.5 million tones of apples are produced in Kashmir annually. The production of apples in the state is growing every year as a result the percentage share of Jammu & Kashmir in national production has also been increasing steadily; it has increased from, 63.5% in FY2006 to 77.2% in FY2010. The apple production in the year 2004-05 was 10933.33 MT and in year it reached to 1852.41 in the year 2010-11. It has been found by us that most of the farmers (50%) are dependent on inorganic fertilizers for apple cultivation in Anantnag. However, 30 % farmers are using bio fertilizers and organic manure in their fields. Under the changing agricultural scenario, it has been realized that

the horticulture sector plays a vital role in providing livelihood security to the farmers globally. Area, production, productivity and export of horticultural produces are vital for increasing farm income and overall employment in the agricultural sector. In this paper an attempt has been made to explore potential and strength of Jammu and Kashmir with regard to its production and export of fresh and dry fruits. Jammu and Kashmir is the major producer of apple and walnuts in India, 77 percent of apple and 90 percent of walnut production in India belongs to Jammu and Kashmir and percentage share of state in India's total production is showing an increasing trend and the state has been declared as the "Agri. Export zone for Apples and Walnuts". Given the declining share of traditional agricultural commodities in production, consumption and trade horticulture represent an important industry to improve income growth and employment in rural areas of Jammu and Kashmir. Agribusiness including export of fresh and dry fruits is the foundation of economy. The industry contributes nearly 60 percent of the states revenue and 22 percent of gross state domestic product (GSDP). It is also estimated that 80 percent of population is engaged in agriculture and its allied sectors including horticulture sector in the state.

LITERATURE REVIEW

In the last few years, there has been a growing awareness and a need to identify the factors which play a vital role in increasing the exports of the products in which the country is good at. The horticulture also demanded the same need. Varied studies have been done in the past related to such areas. Many experts have worked on and concluded that horticulture in Kashmir has ample opportunity for driving economy of the state but it is deeply overlooked. The report of planning Commission Govt. of India reads that Kashmiri horticulturists have preferred to remain the suppliers of primary products rather than diversify into value-added finished products

S. P. Ghosh in the research paper "Carrying capacity of Indian horticulture stresses on the fact that northern states of India" (J&K, Punjab, Uttar Pradesh, Himachal) are presently facing serious ecological and economic problems associated with soil health, groundwater depletion and unfavorable cost risk return structure. It points towards the need to change the very approach for sustainable growth by combining crops, to advance productivity in sempiternity, without the

associated ecological harm. Horticulture should receive greater attention in the hills after taking care of proper soil and water-conservation measures.

In the report titled, “Impact Evaluation Report of Horticulture Mission for North East and Himalayan States (HMNEH)” published By Agricultural Finance Corporation Ltd, it is mentioned that the horticulture processing sector is highly underdeveloped. In India less than 2 percent of horticulture produce is currently processed as compared to 65 to 80 percent in the developed countries. There is a need to encourage setting up of horticulture based processing units at different levels with due regard to the product quality and safety measures. Similarly, value addition is only 7 percent in India as against 88 percent in countries like UK. China’s export competitiveness arises from low costs and a growing processing industry

Fida Iqbal (2004), a researcher in the same field, discusses the importance of the horticulture and its opportunities and pointing out that the fruits of Kashmir is losing shine. The author believes that if proper measures are taken the sector is loaded with huge potential and hence can be a great source of revenue and employment.

Rauf et al. (2011) studied on ‘Economics of production and marketing of Apple in Himachal Pradesh and Jammu and Kashmir _A comparative study’ present study was conducted in kullu district of Himachal Pradesh and Baramullah district of Jammu and Kashmir due to higher concentration of area under apple cultivation in these areas . MVP- MFC ratio revealed that, on average situation human labor and plant protection chemicals were being used efficiently by orchardists the levels both the states. However, there exists a scope for increasing the levels of manures and fertilizers, expenditure on fixed assets and irrigation since currently they were used sub-optimally on the sampled orchards’ of Himachal Pradesh. In Jammu and Kashmir sample orchards, however, manures and fertilizers, fixed and irrigation revealed significant inefficiencies. Marketing aspect indicated that channel- A (producer- Pre- harvest contractor – commission agent – Retailers – consumers) was patronized by about 11% of the sample orchardists in Himachal Pradesh and more than 17% growers in Jammu and Kashmir. Channel – c (producer- commission agent- wholesaler- retailers – consumers) is largest channel through which 56% of produce in H.P and 64% in J&k are routed. This channel was found most popular among apple producers both the study

Wani et al. (1994) studied the economic viability of apple orchards in Kashmir. A sample of 160 apple growers was drawn randomly from selected villages. In order to find out the economic viability of apple orchards, the samples were collected in such a way that it contained orchards from all years of age also were through exceptionally. The researchers found that the payback period is 14 years. The net present value was worked out to be Rs53417.14, benefit cost ratio 2.29 and the internal rate of return 26%. All these measures clearly revealed that the establishment of apple orchards in Kashmir is quite profitable and economically viable.

Sharma et al, (2010) studied on production and marketing apple in Budgam district of Jammu and Kashmir. The present study was undertaken to examine the production of apple and to assess share of producer in consumer's price. A maximum producer share was received while apple sale was done through retailers directly by the quantum moved by the channel was only 10% of total produce. Producers share was significantly reduced when the produce sold through those channels in which number of middleman involved was large. The high marketing cost was associated with the poor market infrastructure in terms of storage, transport, grading and processing facilities. It was observed that significant price spreads exist which indicate the potential to enhance apple growers income. A majority of farmers were reported about the lack of market information in time as well as about the numbers of processing unit to earn the global economy through red revolution.

OBJECTIVES OF THE STUDY

- To study the dependence of horticulture on the Economy of Kashmir.
- To analyses the working of Horticulture board in Jammu and Kashmir for the development of Economy.

METHODOLOGY

The study used secondary data analyses, the data were obtained from various published/unpublished records of the directorate horticulture/agriculture of J&K state, National horticulture board and from government of Jammu & Kashmir.

LIMITATIONS OF THE STUDY

Nothing is perfect so is this study. The present study suffers from certain limitations. The study is based on the information from secondary source which reduce the degree of reliability. However, attempt has been made to collect maximum information from the official record of Directorate of Horticulture in general and J&K in particular on the various aspects of the study. Most of the departments neither publish the information nor do they allow the outsiders an access to their records, internal workings etc. on the pretext of maintaining secrecy. This restricts the data availability. It was difficult to collect all the necessary data from grass-root level.

CONTRIBUTION OF HORTICULTURE IN THE STATE

J&K State is well known for its horticultural produce both in India and abroad. The state offers good scope for cultivation of horticultural crops, covering a variety of temperate fruits like apple, pear, peach, plum, apricot, and almond, cherry and subtropical fruits like mango, guava, citrus litchi, phalsa and Berete. Besides, medicinal and aromatic plants, floriculture, mushroom, plantation crops and vegetables are cultivated in the state. Apart from this, well known spices like saffron and black Zeera are also cultivated in some pockets of the state. As a result, there is a perceptible change in the concept of horticulture development in the state. There are around 7 lakh families comprising of about 33 lakh people which are directly or indirectly associated with horticulture. Horticulture development is one of the thrust areas in agriculture and a number of programmes have been implemented in the past, resulting in the generation of higher incomes in the rural areas, thereby improving the quality of life in villages. Looking to the specie-wise details of area figures under fruit for the year 2013-14, it is observed that largest area of 45.34% (161364 hectares) is occupied by apple out of total area of 355921 hectares under fruit. Walnut is the next major fruit occupying 26.86% in the overall area under fruit. Apple is the most important fruit. As per the horticulture census 1999-2000, about 55% of the area is covered under apple. It is also important in terms of production and provides the maximum marketable surplus. About 30% of A grade, 40% of B grade and 30% of C grade of prefalls and culled apples account for substantial quantum of around 50 thousand tones which needs to be exploited as raw material for processing industry.

PRODUCTION

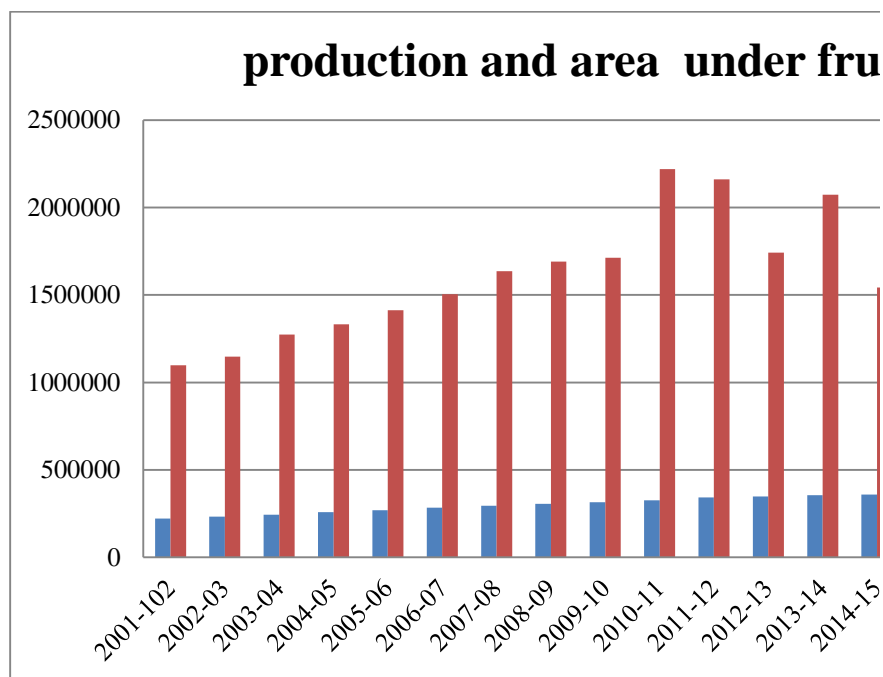
In Jammu and Kashmir State especially in Kashmir Division, horticulture plays a significant role in contributing to the development of the economy of the state. As per estimates, over 6 lakh families are actively involved in horticulture sector. This sector is one of the most important employment generating sectors in the state. Year after year, there is a significant increase in area and production under horticulture crops. It is believed that production is registered without proper crop-cut estimation therefore the fluctuations in production figures need reconciliation.

Table 1. *Annual production of fruits in Jammu and Kashmir (2001-2013)*

YEARS	AREA(HECTARES)	PRODUCTION (METRIC. TONS)
2001-02	221512	1097208
2002-03	231727	1146586
2003-04	242546	1273813
2004-05	258311	1331861
2005-06	268284	1412992
2006-07	283085	1504101
2007-08	295141	1636203
2008-09	305645	1690059
2009-10	315205	1712409
2010-11	325133	2220493
2011-12	342795	2161034
2012-13	347223	1742142
2013-14	355094	2073948
2014-15	359089	1542676

Source: Directorate of Horticulture J&K

Fig.1



During the year 2001-02 the area under fruit cultivation was 221512 hectares and production was worth 1097208 metric tons. The production marked highest growth during 2010-11 worth 2220493 metric tons. But the production decreased during 2012-13 because of untimely rainfalls in the state. The overall production of fruit for the year 2014-15 was worth 1542676 MTs, as there has been some loss to the Horticulture crop due to low temperature caused due to unexpected rains followed by flood in some areas of the State.

Post Harvest Management (PHM)

The horticulture crops like fruit, vegetables and flowers are perishable in nature and require special attention in their harvesting, handling, packaging, storage and processing operations. It is viewed by experts that 10% losses occur at field level, 5% during transportation, 2% during packaging, 9% at storage and 4% at processing, aggregating to 30%. Keeping in view wastages at various stages, the department is concentrating on development of post harvest infrastructure like cold storage, pack houses and intensive training programme on PHM of horticulture crops.

Plant Protection Machinery

Plant Protection Machinery is an essential component of all the programmes and plays a significant role in improving the productivity & quality of fruit. Fruit crop has a high return per

hectare compared to the conventional food grain crops. The State Government is implementing various schemes to promote horticulture. To encourage the fruit growers and to promote trade, toll tax on export of fruit was abolished from 2002-03. Sprayers and pumps are provided to fruit growers on subsidized rates. The scheme envisages providing of plant protection machinery to the farmers/orchardists on subsidized costs.

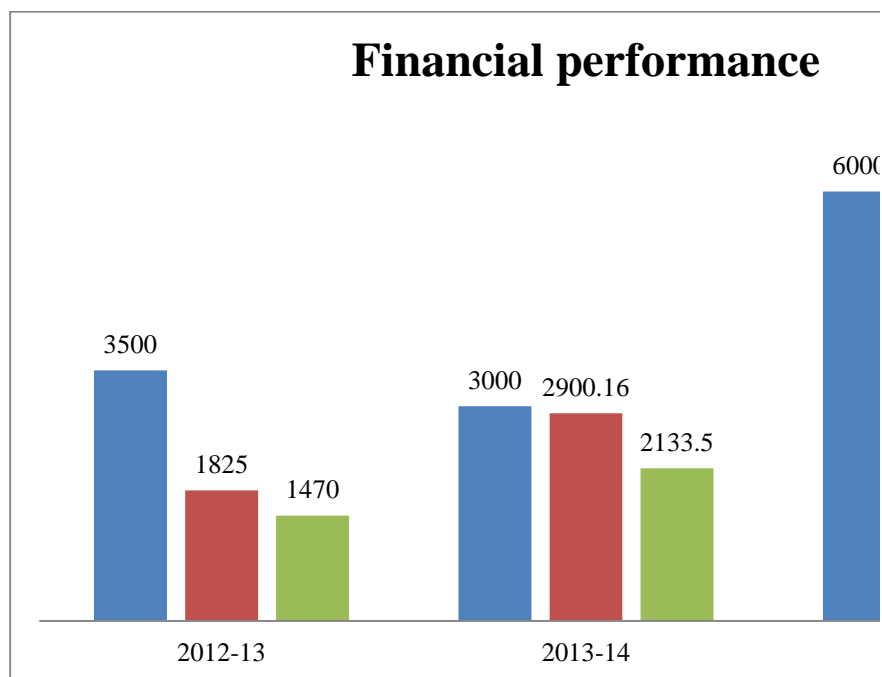
Employment opportunities in the Horticulture Sector

One hectare of land planted with fruit trees provides additional employment for one thousand man-days, thereby generating employment for over 6 crore man-days by planting fruit trees on 65000 hectares. Some hands assist the farmers in marketing their products; others help in providing the seeds, the plant materials and insecticides and chemicals to the farmers so as to ensure that the plants are protected from diseases and pests; others assist in the picking/harvesting of fruit. The cultivation of fruits is labor intensive and requires a significantly higher labor force, starting from the stage of planting the trees, to the point of its marketing. The manpower requirement in the cultivation and marketing of apples as well as field crops is met by employing paid workers and even the support of family members.

Table 2. Financial Performance under CSS (Rs in lakhs)

YEAR	APPROVED OUTLAY	FUNDS RELEASED	ACTUAL EXPENDITURE
2012-13	3500	1825	1470
2013-14	3000	2900.16	2133.5
2014-15	6000	1500	1416.76

Source: Directorate of Horticulture J&K



Horticulture Mission for North Eastern and Himalayan States was one of the Initiatives up to last financial year which had four Mini Missions but the Government of India has now restructured the scheme and integrated approach has been adopted for the development of horticulture. The new scheme known as Mission for Integrated Development of Horticulture (MIDH) has been launched during 2014-15 this is 100% Centrally Sponsored Scheme and the financial progress achieved at State level over the years. During 2014-15, an allocation of Rs 6000.00 lakh was earmarked for the scheme against which Rs 1500.00 lakh have been released and expenditure ending Jan. 2015 has actually arrived at an amount of Rs. 1416.76 lakhs, and it is expected that full allocated amount will be utilized during the reference year. Tangible results are expected during 2014-15 under the various sectors of development implementing various interventions of beneficiary oriented schemes to raise the standards of livelihood parameters.

CONCLUSION

Horticulture sector serves as a highly contributing industry to the state's economy. Out of the total area of horticulture in the state, 90% is concentrated in the valley due to its suitable climate with annual turnover of 75 million US\$; this sector is the biggest source of income in the state's

economy next to agriculture. Contribution of apple sector to state's GDP is 7-8 % and 45% of economic returns in the agricultural sector are accounted for by horticulture. Due to continuous increasing trend in the production and export of fresh and dry fruits the agricultural land gets diversified into horticulture land and increasing production of horticulture produces directly influences the income, employment and living standard in the rural areas of state. However, the sector is adversely affected due to lack of marketing strategy. Considering the growth prospects of this sector, the state govt. needs to plan for higher and more quality production. The aggregate production and export of fresh and dry fruits, has shown increasing trend the overall production the fresh and dry fruits during 2004-2005 was 1232.75 thousand metric tons and it reached to 1740.62 thousand metric tons during 2010-11 and the overall export of fresh and dry fruits was 7.6 lakh metric tons in 2003-04 and it reached to 8.66 lakh metric tons in 2010-11. However during the current year seasonal variations coupled with floods of September 2014 resulted in loss to the horticultural industry. However, the increased production yielded some good results and our export worth Rs. 4500.00 crore is expected during 2014-15 as against Rs. 5000.00 crore during 2013-14

SUGGESTIONS

Development of horticulture sector should be the prime focus of the Government.

There is need to shift to commercial farming to increase fruit production.

The govt. should offer a package of incentives to the growers for improving the quality and volume of production in the State.

There is a need to properly implement the market intervention scheme to help facilitate growers to sell their produce with improved returns.

The Government should continue to procure C-grade apples from the growers so that the best quality apple is exported into the markets

There should be better coordination between the department and SKUAST to encourage growers to shift to commercial farming for better economic returns

The department should identify areas which have potential for commercial farming which will provide huge economic gains in national and overseas markets.

Emphasizing upon the need for promoting high-density orcharding with facility of micro-irrigation to arrest the fall in apple production.

The sector should adopt the best practices in vogue in fruit farming to tap the potential of the horticulture sector in the State.

The department should to take immediate necessary steps to get certification for declaring walnut, almonds, apricots and Ladakh vegetables as produce of organic farming. This will ensure far higher returns than what we are getting today for these fruits.

The department should choose five to seven locations for micro-irrigation / sprinkling so as to encourage people towards high-density orcharding.

The results of the experiments undertaken in Agricultural Universities should show results on the ground and not remain confined to research only.

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