
Export performance of Jammu and Kashmir's horticulture sector: A case study of one decade (2005-06 to 2014-15)

Rather Tajamul Islam & Mohammad Younus Wani

¹Research Scholar, Department of Post Graduate Studies and Research in Economics, Rani Durgavati Vishwavidyalaya Jabalpur (M.P.) - India.

Lajurah – Pulwama, Jammu and Kashmir. Pin code - 192301.

Contact: 9797249056. Email: tajamulislam20@gmail.com.

²Research Scholar, Economics, BU Bhopal (MP), India

Abstract

Export performance of the Jammu and Kashmir's horticulture sector has been comprehensively analyzed in this paper. Export of fruits plays very vital role in generating revenue, exchange of foreign earnings and achieving lot of knowledge and information about the unknown events and hidden secrets which are becoming the means of growth, development and welfare of those countries who are taking steps towards the trade. The export of the horticulture produce from Jammu and Kashmir has significantly increased over the years, but still constituted only 41.35 per cent of total production. The production of 1504.01 thousand MTs in 2006-07 has risen to the level of 2493.99 thousand MTs with turnover of Rs. 6000.00 crore approximately during 2015-16.

Key Words: - ACGR, Agricultural Sector, Export, Growth Rate, Horticultural Production.

Introduction

Agriculture sector is considered as backbone of Indian Economy and around 50% work force is still dependent on Agriculture for livelihood, despite of structural changes taking place. Presently Agriculture sector (including livestock) is contributing 14% to the Gross Domestic Product (GDP) at National level, and 20.59% to GSDP (at current prices) but it is still the main source of livelihood for majority of rural population. Therefore, rapid growth of Agriculture is indispensable for faster inclusive and sustainable growth. The performance of agriculture sector in the Indian economy in the recent years has not been quite satisfactory because of the decrease in the growth rate of agricultural output (Chand, 2005). Not surprisingly,

most farmers have made their intentions clear about disliking the agricultural sector and hence, given an option, want to quit agriculture and shift from agriculture to horticulture (Joshi, 2005). With this backdrop, diversification towards horticultural crops has been suggested as a viable option to stabilize and raise farm income, enhance agricultural growth and increase employment opportunities in the agriculture sector (Vyas, 1996; Joshi, 2005; Birthal *et al.*, 2007). The Horticulture has emerged as an indispensable part of agriculture, offering a wide range of choices to the farmers for crop diversification. It also provides ample opportunities for sustaining large number of agro based industries which generate substantial employment opportunities and play a vital role in providing livelihood security to the farmers. Horticulture accounts for about 30% of India's agriculture GDP from 13.08 % of cropped area. Fruits and vegetables account for nearly 90% of the total horticulture production in the country. It is a matter of satisfaction, we are second largest producer of vegetables and fruits and are the leader in several horticultural crops, namely mango, banana, papaya, cashew nut, areca nut, potato, and okra and enjoy reputation for

highest productivity in grapes, and our presence in global market is significant.

Agriculture as we know plays a very prominent role for development of economy of J&K State. The state is ranked 15th in the agriculture. Agriculture contributes around 27% to the J&K state's economy. Almost 70% of its population is dependent on agriculture and about 49% of the working class is engaged in it. During the last several years, diversification of Agriculture in State towards high value commodities, i.e. fruits, vegetables and livestock products is taking place at a faster pace and is reflected in the high share of High Value Commodities (HVCs) in agricultural production in a number of districts. 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, almond and cherry. Year after year, there is a significant increase in area and production under horticulture crops. There are around 7 lakh families comprising of about 33 lakh people which are directly or indirectly associated with horticulture. As a result, there is a perceptible change in the concept of horticulture development in the state.

Area under Fruits in J&K State has increased from 267411 hectares in 2005-06 to 359066 hectares in 2014-15 and the production has increased from 1403226 MTs in 2005-06 to 1542675.88 MTs in 2014-15, recording an increase of 34.27 % in area and 9.93 % in production during the last decades. Jammu and Kashmir is the largest producer of apples and walnut in India, about 70 percent of apple and 90 percent of walnut production in India comes from the state of Jammu and Kashmir that is why, the state has been declared as the “Agri. Export zone for Apples and Walnuts”. Looking to the specie-wise details of area and production figures for the year 2014-15, it is observed that largest area of 45.51 % (163432 hectares) is occupied by apple while as Walnut is the next major fruit occupying 15.88 % (57048 hectares) in the overall area under fruit.

Review of literature

Weinberger Katinka and Lumpkin A. Thomas (2005) have highlighted the growing importance and demand of horticulture fruits due to increasing income levels, changing life styles and urbanization and how the horticulture crops contribute the poverty alleviation and economic

development via employment generation and income augmentation. The paper has presented an empirical base that how horticulture sector enabled rural poor to escape from poverty through production and exchange of non- staple crops by increasing employment, brings commercialization of rural sector.

Rather et.al. (2013), 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. 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. 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.

Darzi (April 2016) Horticulture sector plays a vital role in providing livelihood security

to the farmers globally under the changing agricultural scenario. Area, production, productivity and export of horticultural produces are vital for increasing farm income and overall employment in the agricultural sector. Given the declining share of traditional agricultural commodities in production, consumption and trade; horticulture represents an important industry to improve income growth and employment in rural areas of Jammu and Kashmir.

Desai Rajesheri and Sheikh Sajad Ali (2016), 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.

Objectives

1. To analyze the production of major fresh and dry fruits.
2. To find out the exports of fresh and dry fruits from the state to other states.

Methodology and Data

Keeping in view the status of the research work, the data has been collected from the secondary sources. The present study conducted for Jammu and Kashmir State pertains to the period of 2006-07 to 2015-16. The secondary data has been collected from government official records, valid records of the state government, Directorate of Economics and Statistics Jammu and Kashmir, Department of Financial commissioner revenue Jammu and Kashmir, Department of horticulture Jammu and Kashmir, various published reports, books, journals, statistical digest and other official record from outside and within the state. The equation's mentioned below were used to find out the growth rate and Annual Compound Growth Rate (ACGR) of production and export of fresh and dry fruits in Jammu and Kashmir.

$$\text{Growth Rate} = (Y_c - Y_b / Y_b) * 100$$

Where,

Y_c - Quantity in current year

Yb - Quantity in Base year.

$$\text{Annual Compound Growth Rate} = \left(\text{Ending Value} / \text{Beginning Value} \right)^{(1/\text{Number of Years})} - 1$$

Table- 1: Production of fresh and dry fruits in thousand metric tonnes from 2006-07 to 2015-16 in Jammu and Kashmir

Year	Fresh Fruits				Dry Fruits				Total Fruits
	Apple	Pear	Others	Total	Walnuts	Almond	Others	Total	
2006-07	1222.18	43.09	108.41	1373.68	114.93	15.18	0.22	130.33	1504.01
2007-08	1311.85	45.86	120.21	1477.92	146.78	11.26	0.24	158.28	1636.20
2008-09	1332.81	47.39	149.63	1529.83	149.13	12.04	0.25	161.42	1691.25
2009-10	1367.80	45.81	94.3	1507.91	154.27	12.52	0.18	166.97	1674.88
2010-11	1852.41	52.50	140.64	2045.55	163.74	12.51	0.18	176.43	2221.98
2011-12	1749.22	58.12	122	1929.34	224.59	3.74	0.07	228.40	2175.74
2012-13	1348.15	54.84	121.58	1524.57	209.05	8.20	0.29	217.54	1742.11
2013-14	1647.68	73.51	120.01	1841.20	220.58	11.81	0.35	232.74	2073.94
2014-15	1170.30	59.72	114.53	1344.55	187.93	10.05	0.14	198.12	1542.67
2015-16	1966.41	105.93	145.24	2217.58	266.13	7.06	3.22	276.41	2493.99
ACGR	4.86	9.41	2.96	4.92	8.75	-7.37	30.78	7.80	5.18

Source: Digest of Statistics, Directorate of Economics and Statistics, J&K Government, various issues

Figure- 1: Production of fresh and dry fruits in thousand metric tonnes from 2006-07 to 2015-16 in Jammu and Kashmir

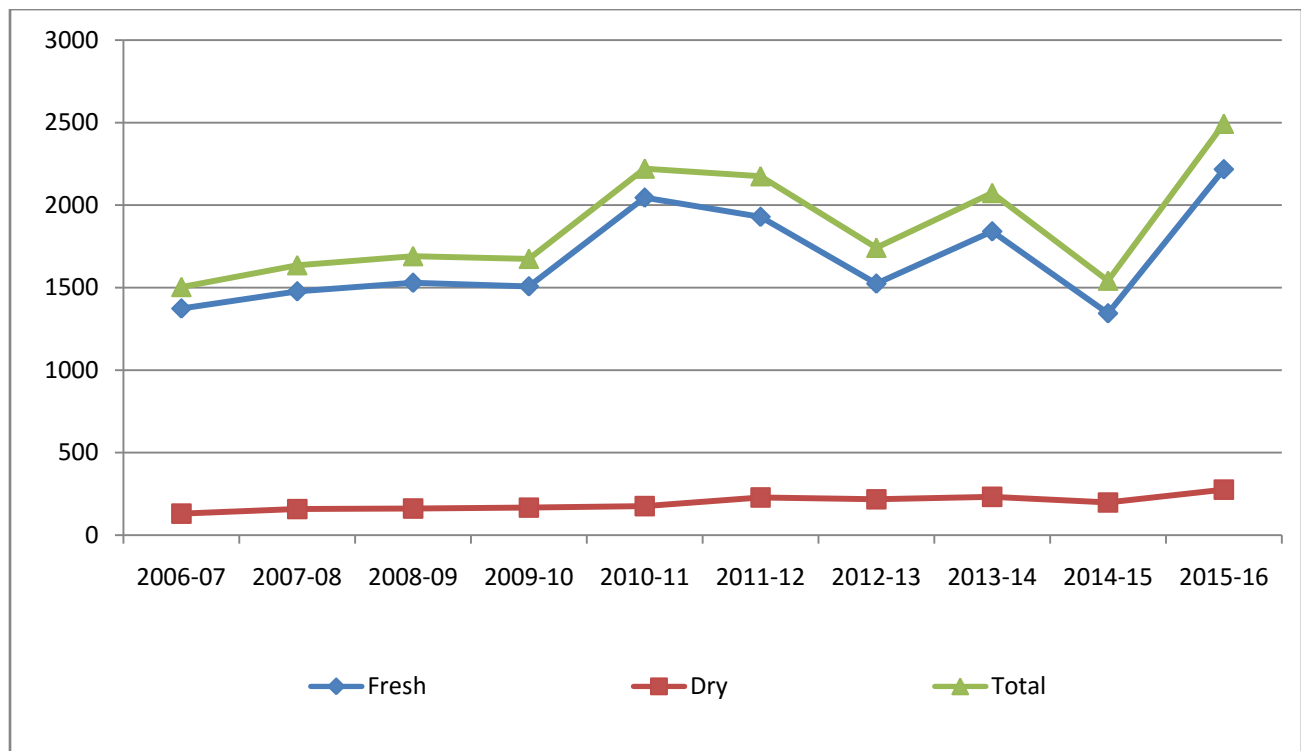


Table 1 shows the production of fruits in Jammu and Kashmir from 2006-07 to 2015-16. During the tenure of one decade production of fruits is showing an increasing trend. During 2006-07, the production of fruits was 1504.01 thousand MTs, in which relative share of fresh fruits was 1373.68 thousand MTs and relative share of dry fruits was 130.33 thousand MTs, which increased to 2493.99 thousand MTs, in which relative share of fresh fruits was 2217.58 thousand MTs and relative share of dry fruits was 276.41 thousand MTs in the year 2015-16, recording an Annual

Compound Growth Rate (ACGR) of 5.18 percent in total production, 4.92 percent in fresh fruit production and 7.80 in dry fruit production. Looking at the species wise production of fruits, apple is the leading fresh fruit and walnut is the leading dry fruit. During 2006-07, the production of apple was 1222.18 thousand MTs and walnut was 114.93 thousand MTs which increased to 1966.41 and 266.13 thousand MTs respectively in the year 2015-16, resulting an Annual Compound Growth Rate of 4.86 percent for apples and 8.75 percent for walnuts during the period one decade. The

Annual Compound Growth Rate for pear is 9.41 percent, other fresh fruits 2.96 percent, almond -7.37 percent and other dry fruits 30.78 percent.

Table- 2: Growth Rate of Production of fresh and dry fruits from 2006-07 to 2015-16 in Jammu and Kashmir.

Year	Fresh Fruits				Dry Fruits				Total Fruits
	Apple	Pear	Others	Total	Walnuts	Almond	Others	Total	
2006-07	-	-	-	-	-	-	-	-	-
2007-08	7.33	6.43	10.88	7.58	27.71	-25.82	9.09	21.44	8.79
2008-09	1.60	3.33	24.47	3.51	1.60	6.92	4.16	1.98	3.36
2009-10	2.62	-3.33	-36.97	-1.43	3.44	3.98	-28	3.43	-0.96
2010-11	35.43	14.60	49.14	35.65	6.13	-0.07	0	5.66	32.66
2011-12	-5.57	10.70	-13.25	-5.68	37.16	-70.10	-61.11	29.45	-2.08
2012-13	-22.93	-5.57	-0.34	-20.98	-6.92	119.25	314.28	-4.75	-19.93
2013-14	22.22	34.04	-1.29	20.76	5.51	44.02	20.68	6.98	19.04
2014-15	-28.97	- 18.76	-4.56	-26.97	-14.80	-14.90	-60	-14.87	-25.61
2015-16	68.02	77.37	26.81	64.93	41.61	-29.75	2200	39.51	61.66

Table 2 shows the growth rate of production of fruits in the state of Jammu and Kashmir for a period of one decade (2006-07 to 2015-16). The growth rate of total fruits was highest (61.66) in the year 2015-16, followed by 32.66 in the year 2010-11, and it was lowest (32.66) in the year 2014-15 followed by -19.93 in the year 2012-13. The growth rate of fresh fruits was highest (61.66) in the year 2015-16, followed by 32.66 in the year 2010-11, and it was lowest (32.66) in the year 2014-15 followed by -19.93 in the year 2012-13 while as the growth rate of dry fruits was highest (39.51) in the year 2015-16, followed by 29.45 in the year 2011-12, and it was lowest (-14.87) in the year 2014-15 followed by -4.75 in the year 2012-13

Among the fresh fruits, the growth rate of apple was highest (68.02) in the year 2015-16 and it was lowest (-28.97) in the year 2014-15, the growth rate of pear was highest (77.37) in the year 2015-16, and it was lowest (-18.76) in the year 2014-15 and the growth rate of other fresh fruits was highest (49.14) in the year 2010-11 and it was lowest (-36.97) in the year 2009-10. Among the dry fruits, the growth rate of walnut was highest (41.61) in the year 2015-16 and it was lowest (-14.80) in the year 2014-15, the

growth rate of almond was highest (119.25) in the year 2012-13, and it was lowest (-70.10) in the year 2011-12 and the growth rate of other dry fruits was highest (39.51) in the year 2015-16 and it was lowest (-14.87) in the year 2014-15.

It is clear from the Table that Growth rate in case of almost every fruit and total fruit production was lowest during the two years of our study period (2014-15 and 2012-13) and it was due to the untimely heavy rains from 1st to 6th September caused devastating floods and landslides in the state of Jammu and Kashmir during 2014-15 and due to severe drought experienced in various parts of the state during 2012-13.

Export of fresh and dry fruits from Jammu and Kashmir

Export of fruit outside the State, has occupied a prestigious place in trade of the State but it is showing a fluctuating trend over the time period of one decade (2006-07 to 2016-17). Although, the production under horticulture sector is increasing year by year in the state of Jammu and Kashmir but the percentage of total production exported outside the state is showing a fluctuating trend. However, the increased production

yielded some good results and our export worth Rs. 4500.00 crore was reported in 2014-15

Table 3 shows the export of fresh and dry fruits from the state of Jammu and Kashmir outside the state and also the growth rate of

exports. During 2006-07, 692.89 thousand MTs (46.06% of the total production) was exported in which relative share of fresh fruits was 678.44 thousand MTs (49.38 % of total fresh fruit production) and relative share of dry fruits was 14.45 thousand MTs

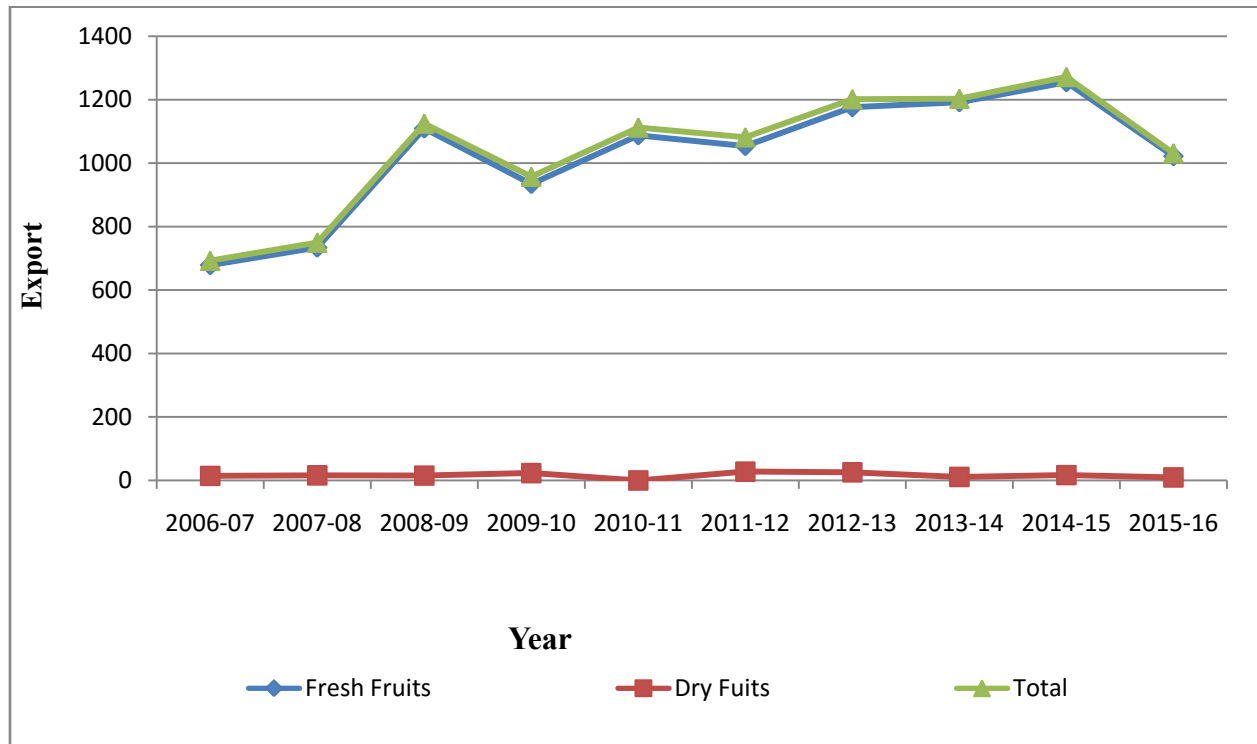
Table -3: Export of fresh and dry fruits in thousand metric tonnes from 2006-07 to 2015-16

YEAR	FRESH			DRY			TOTAL		
	EXPORT	G.R.	%AGE OF TOTAL PRODUCTION	EXPORT	G.R.	%AGE OF TOTAL PRODUCTION	EXPORT	G.R.	%AGE OF TOTAL PRODUCTION
2006-07	678.44	-	49.38	14.45	-	11.08	692.89	-	46.06
2007-08	733.71	8.14	49.64	16.07	11.21	10.15	749.78	8.21	45.82
2008-09	1109.25	51.18	72.50	15.47	-3.73	9.58	1124.72	50	66.50
2009-10	934.33	-15.76	61.96	23.17	49.77	13.87	957.5	-14.86	57.16
2010-11	1087.63	16.40	53.17	25.12	8.41	14.23	1112.75	47.54	50.07
2011-12	1053.83	-3.10	54.62	27.86	10.90	12.19	1081.69	-2.79	49.71
2012-	1176.22	11.61	77.15	25.61	-8.07	11.77	1201.83	11.10	68.90

13									
2013-14	1192.00	1.34	64.74	11.10	-56.65	4.76	1203.1	0.10	58.01
2014-15	1254.94	5.28	93.33	16.94	52.61	8.55	1271.88	5.71	82.44
2015-16	1021.68	-18.58	46.07	9.70	-42.73	3.50	1031.38	-18.90	41.35
ACGR	4.17			-3.91			4.05		

Source: Digest of Statistics, Directorate of Economics and Statistics, J&K Government, various issues

Figure- 2: Export of fresh and dry fruits in thousand metric tonnes from 2006-07 to 2015-16 in Jammu and Kashmir



(11.08 % of total dry fruit production) which was increased to 1031.38 thousand MTs (41.35 % of the total production) in which relative share of fresh fruits was 1021.68

thousand MTs (46.07 % of total fresh fruit production) and relative share of dry fruits was 9.70 Thousand MTs (3.50 %

of total dry fruit production) in the year 2015-16, resulting an Annual Compound Growth Rate (ACGR) of 4.05 percent in total exports, 4.17 percent in fresh fruit exports and -3.91 percent in dry fruit exports.

The growth rate of total exports outside the state was highest (47.54) in the year 2010-11 and it was lowest (-18.90) in the year 2015-16, in case of fresh fruits it was highest (51.18) in the year 2008-09 and it was lowest (-18.58) in the year 2015-16 and in case of dry fruits it was highest (52.61) in the year 2014-15 and it was lowest (-42.73) in the year 2015-16. During 2015-16 the exports in terms of total exports, fresh fruit exports as well dry fruit exports shows a declining trend both in case of growth rate and percentage of total production as compared to previous year

and reason is the introduction of Market Intervention Scheme (MIS) under which “C” grade apples are procured at a support price of Rs.6 per kg. For processing into juice concentrates in the locally established juice processing units. Secondly, India is also importing fruits from foreign countries as free trade policy which is in force at the country level.

Conclusion

The Horticulture sector plays an important role in the State and contributes significantly to the State Economy and is a source of livelihood for 33 lakh people. The export market of Jammu and Kashmir’s horticulture produce is very good. Export of fruits is an “ENGINE OF A GROWTH” and welfare of the economy of Jammu And Kashmir State. Export of fruits plays very vital role in generating revenue, exchange of foreign earnings and achieving lot of knowledge and information about the unknown events and hidden secrets which are becoming the means of growth, development and welfare of those countries who are taking steps towards the trade. The production of 1504.01 thousand MTs in 2006-07 has risen to the level of 2493.99 thousand MTs with turnover of Rs. 6000.00 crore approximately during 2015-16. Jammu and Kashmir is the home of world’s famous varieties of dry fruits like walnut, saffron and honey which are exported to the different countries and helps in earning a substantial foreign exchange.

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