

Growth trends in Export and Import of Horticultural Crops from India and Karnataka: An Economic analysis

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ABSTRACT

In view of increasing demand for Indian Horticulture produce, fresh and processed products in the International market, the export of horticultural crops at all India level has picked up. As India stands second in production of both fruits and vegetables, spices and few plantation crops such as tea and coffee fetching more export value in the International market. The horticultural exports in India have increased after the implementation of NHM scheme. Horticulture production in India has crossed the production of agriculture crops and reached a highest production of 280 million tonnes during 2012. India is exporting horticultural crops mainly to U.A.E., Nepal, Saudi Arabia, Bahrain and Kuwait. The two major countries that import most of India's horticultural crops are UAE and Saudi Arabia. These findings were similar with findings of the study conducted by Mittal (2007) stating that fruits and vegetables exports has expanded rapidly in the international market. The number of commodities as well as the number of varieties produced and traded have increased manifold during the past 25 years. There is an overall increase in the demand for fruits and vegetables for consumption both in fresh and processed form. In Karnataka, the growth in export of horticultural crops in quantity terms has increased from 2.03 to 31.98 per cent between pre and post NHM period. Similarly, the growth in horticultural exports in value terms also has increased from 1.92 to 30 per cent between pre and post NHM period. Karnataka state is one among the major states in involved in production and export of horticulture produce in India. The growing demand for horticultural crops such as mango, pomegranate, grapes and processed products has increased in International market. The processed products like pickles, chutney, raisin, have more demand in the international market. This trend has been increased specially after the implementation of NHM scheme.

Keywords: Export, import, NHM, processed products, international market

In view of the limitation of the data, the present study is restricted for a period of 25 year from 1991-92 to 2015-16 for analytical purpose. However, for better understanding of growth and development of horticultural crops, the growth in area, production and productivity were compared for the period from 1991-92 to 2015-16 which was further bifurcated into two sub periods viz., Period-I (1991-92 to 2004-05), Period-II (2005-06 to 2015-16). The secondary data pertains to area, production and productivity of horticultural crops in Karnataka was collected from the Assistant Director of Horticulture office from

each selected districts in the study area, Directorate of Economics and Statistics, Bengaluru. SNHM board, Horticulture Office, Lalbagh, Bengaluru.

Data and Methodology

Growth rate in export and import of horticultural crops were computed for the Triennium ending from 1995-96 to 2015-16. The linear, log-linear, exponential and power functions are some of the important functional forms employed to analyze the growth rates. Different functional forms were tried for working out the growth rates in export and

import as suggested by Chengappa (1981) and Sikka *et al.* (1985). In the present study, Compound Annual Growth Rates (CGAR %) in export and import of horticultural crops were estimated by specifying the following functional form.

RESULTS AND DISCUSSION

Trends in export and import of horticultural crops during pre and post National Horticulture Mission period

The trends in export and import of horticultural crops during pre and post NHM period in India and Karnataka was analyzed using CAGR and the results on presented below.

Growth in export of horticulture crops from Karnataka during 1995-96 to 2015-16

The growth in export of horticulture crops from

Karnataka to the total national horticultural exports for the period from 1995-96 to 2015-16 is presented in Table 1. The growth in exports of horticultural crops from 1995-96 to 2015-16 stands at 3.01 per cent while the total national horticultural crops export from India stands at 8.74 per cent during the same period. The share of horticultural export from Karnataka to total national horticultural export is decreasing specially after 2005-06 onwards.

Growth in export of horticultural crops from India in pre and post NHM period

The growth of exports horticultural crops in quantity and value terms in pre and post NHM period is presented in Table 2. The growth in export of horticultural crops in India had decreased from 14.41 to 4.10 per cent per annum between pre and post NHM period. While in value terms, the growth in exports of horticultural crops in

Table 1: Growth in export of horticulture crops from Karnataka during 1995-96 to 2015-16

Sl. No.	Years	Horticultural exports from Karnataka (MT)	Total national horticultural exports (MT)	Share of Horticultural exports from Karnataka to total national horticultural exports (%)
1	1995-96	21.09	747.06	2.82
2	1996-97	21.99	897.08	2.45
3	1997-98	21.42	872.68	2.45
4	1998-99	24.32	632.14	3.85
5	1999-00	23.15	884.87	2.62
6	2000-01	24.32	1092.04	2.23
7	2001-02	24.53	783.42	3.13
8	2002-03	25.43	1368.27	1.86
9	2003-04	26.54	1726.27	1.54
10	2004-05	26.74	1863.25	1.44
11	2005-06	29.11	4019.05	0.72
12	2006-07	65.76	4253.92	1.55
13	2007-08	16.12	2375.21	0.68
14	2008-09	29.73	3393.60	0.88
15	2009-10	33.69	3371.36	1.00
16	2010-11	19.59	2936.64	0.67
17	2011-12	24.81	3415.74	0.73
18	2012-13	33.96	2878.50	1.18
19	2013-14	27.43	2816.98	0.97
20	2014-15	21.65	2503.72	0.86
21	2015-16	36.06	2535.57	1.42
CAGR(%)		3.01*	8.74*	

Source: Indiastat data and APEDA data, 2015-16; *Significant at 5 per cent level

Table 2: Growth in export of horticultural crops from India in pre and post NHM period

Sl. No.	Years	Quantity (MT)	Value (US \$)	Per Unit value (US \$/ tonnes)
1	1995-96	747.06	407.46	545.42
2	1996-97	897.08	412.45	459.77
3	1997-98	872.68	402.94	461.72
4	1998-99	632.14	413.92	654.80
5	1999-00	884.87	412.34	465.99
6	2000-01	1092.04	421.74	386.19
7	2001-02	783.42	421.43	537.93
8	2002-03	1368.27	436.73	319.19
9	2003-04	1726.27	452.63	262.20
10	2004-05	1863.25	630.54	338.41
CAGR (%)		14.41*	3.71*	
Post NHM period				
11	2005-06	4019.05	587.39	146.15
12	2006-07	4253.92	517.64	121.69
13	2007-08	2375.21	490.04	206.31
14	2008-09	3393.60	685.09	201.88
15	2009-10	3371.36	767.00	227.50
16	2010-11	2936.64	754.65	256.98
17	2011-12	3415.74	937.08	274.34
18	2012-13	2878.50	1110.79	385.89
19	2013-14	2816.98	1524.48	541.18
20	2014-15	2503.72	1414.45	564.94
21	2015-16	2535.57	1170.34	461.57
CAGR (%)		4.1*	12.95*	
Overall period CAGR (%)		8.74*	6.81*	

Source: Indiastat data and APEDA data, 2015-16; *Significant at 5 per cent level

Table 4: Growth in import of horticultural crops into India in pre and post NHM period

Sl. No.	Years	Quantity (MT)	Value (US \$)	Per Unit value (US \$/ tonnes)
1	1995-96	508.65	327.55	643.96
2	1996-97	519.64	311.27	599.02
3	1997-98	512.97	322.56	628.80
4	1998-99	520.97	312.81	600.44
5	1999-00	516.42	317.19	614.20
6	2000-01	517.84	326.28	630.07
7	2001-02	527.81	337.65	639.71
8	2002-03	539.85	321.57	595.67

9	2003-04	537.83	332.56	618.33
10	2004-05	542.33	332.81	613.67
CAGR (%)		0.67	0.51	
Post NHM period				
1	2005-06	563.72	357.19	633.62
2	2006-07	596.13	356.28	597.65
3	2007-08	602.13	367.18	609.79
4	2008-09	602.73	372.16	617.45
5	2009-10	605.48	374.91	619.19
6	2010-11	627.50	270.01	430.30
7	2011-12	700.10	340.73	486.69
8	2012-13	780.52	541.46	693.72
9	2013-14	748.35	528.41	706.10
10	2014-15	702.79	341.74	486.26
11	2015-16	945.67	123.26	130.34
CAGR (%)		4.23*	-3.34	
Overall Period CAGR (%)		2.46*	-0.06	

*Source: Indiastat data and APEDA data, 2015-16; * Significant at 5 per cent level*

India had increased from 3.71 to 12.95 per cent per annum between pre and post NHM period. In overall growth of horticultural export from India in quantity and value terms growing at a 8.74 and 6.81 per cent, respectively and value of horticultural crops between 1995-96 to 2015-16.

Growth in import of horticultural crops into India in pre and post NHM period

The growth for import of horticultural crops in quantity and value terms for the period from 1995-96 to 2015-16 is presented in Table 4. The growth of import of horticultural crops in volumetric terms in India had increased from 0.67 to 4.23 per cent per annum between pre and post NHM period. In value terms, the growth of import of horticultural crops had decreased growth rate in India from 0.51 to -3.34 per cent per annum between pre and post NHM period. In overall, the growth of import of horticultural crops in terms of quantity in India stands at 2.46 per cent and in value terms the growth stands at -0.06 per cent per annum.

CONCLUSION

In view of increasing demand for Indian Horticulture produce, fresh and processed products in the International market, the export of horticultural crops at all India level has picked up. As India

stands second in production of both fruits and vegetables, spices and few plantation crops such as tea and coffee fetching more export value in the International market. The horticultural exports in India have increased after the implementation of NHM scheme. Horticulture production in India has crossed the production of agriculture crops and reached a highest production of 280 million tonnes during 2012. There is an overall increase in the demand for fruits and vegetables for consumption both in fresh and processed form.

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The growth in import of horticultural produce into India in quantity terms between pre and post

NHM period has increased from 0.67 to 4.23 per cent. While the import of horticultural produce into India in value terms between pre and post NHM period has declined from 0.51 to -3.34 per cent. At all India level, though the growth in import of horticultural produce into India in quantity terms is increasing, it is declining in value terms. Though, India is the leading producer of horticultural crops, its consumption is also growing in view of rising population in the country. Increasing awareness about nutritional value among the horticultural crops also adding towards the imports of more horticultural produce into India.

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