Export Performance of Mango Fruit from India

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Introduction

The new economic policy initiated in early nineties in our country has ushered in the age of economic liberalization. Consequently, it has thrown up many challenges as well as opportunities for India's agricultural exports in general and horticultural exports in particular. Even though the economic liberalization programme is primarily focused on agriculture, the strategy of reforms is aimed at creating a more favourable policy framework for agricultural development and much more needs to be done in this area. With the signing of the agreement on the Dunkel Draft Report, which gave rise to the World Trade Organization (WTO) in January 1995, the international trade situation has undergone a change, one of the main results of which will be to provide opportunities for enhanced agricultural exports over time. Trade in agricultural goods can play a significant role in promoting economic development, especially in developing countries where the majority of the population is engaged in agriculture.

Agricultural sector in the Indian economy contributes about 25 per cent of the GDP and accounts for 17.89 per cent of total exports. Horticultural crops constitute a significant component of agricultural production of the country and fruits particularly, have been identified as having great potential in the domestic and world markets.

The ninth five year plan has laid special emphasis on the production of fruit crops in our country. As a result of this, area under fruit crops has increased from 2.83 million hectares in 1987-88 to 3.73 million hectares in 1998-99 demonstrating an increase of 32.00 per cent in the acreage and a remarkable increase in the production of fruits to the extent of 59.16 per cent. During this

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period, the productivity has also increased from 9.8 tonnes to 11.8 tonnes per hectare (NHB Years Book, 2000). Consequently India has emerged as the largest producer of fruits in the world (44.04 million tones).

Methodology

In order to study the export performance of alphonso fruit from India time series information for the year 1990-1998 on the area, production, value, export destinations, export quantities and values were collected from APEDA and DGCIS, Kolkota reports. To draw meaningful conclusion from compiled data simple tabular analysis and compound growth rate (CGR) techniques were used as tools in the study conducted during the year 2000-01.

Mango in India

In India, mango alone occupies nearly 38 per cent of the total area under fruits. There are more than 3,000 named varieties of mango in India but a few varieties viz., *Alphonso, Pairi, Dashehari, Langra, Fajli, Chausa, Totapuri, Neelum, Sapheda, Rataul, Banganapalli (Beneshan), Mallika, Amprapali, Dashehari – 51, Sindhu, Swarna Rekha*, etc., are being cultivated for commercial purposes. Among these varieties *Dashehari, Langra* and *Chausa* are popular varieties of the northern regions of the country while *Alphonso* and *Pairi* are popular in the Deccan Plateau and western regions. *Totapuri, Neelum* and *Benishan* are the important varieties of south India. As per the statistics published for the year 1998-99, Andhra Pradesh was the leading state in mango cultivation accounting for 17.98 per cent of the country's total mango area of 1401.6 thousand hectares followed by Uttar Pradesh (17.15%) and Bihar (11.00%) (Source : NHB Yearbook, 1999).

Karnataka, Maharashtra, Orissa, Tamil Nadu, Kerala and Gujarat are the other states where mango is cultivated on a large scale. Nearly 92 per cent of the mango area is concentrated in these nine states with Andhra Pradesh, Uttar Pradesh and Bihar together accounting for 45 per cent of the country's mango area.

Though India produces about 42 per cent of world's mangoes, its share in the world mango exports is hardly 13.50 per cent. Other major exporters of mango in the world market are Venezuela, Pakistan, Kenya, Mexico, Brazil, South Africa, Ivory Coast, Israel and Peru. North America alone accounts for 50 per cent of the total world consumption followed by the European Economic Community (EEC) and the Middle East countries.

Export pattern of Mango Fruit from India

It can be seen from Table 1 that, though the quantity and value of mango exports from India have fluctuated during 1990 – 91 to 1998 – 99, there is an increasing trend in the quantum of export over the entire period which showed an average compounded growth rate of 7.8 per cent per annum, with the increase being considerable in the latter part of the period. The unit value realization in rupees appears to have increased marginally over a period of time in dollar terms, it has actually gone down due to devaluation of rupee against dollar.

Table 1 : Mango Exports from India

Year	Quantity (M. Tones)	Value (000 Rs.)	Unit value per tones	
			Rupees	Dollar
1990	19,380	312200	16,109	895
1991	23,104	354000	15,347	614
1992	25,850	459900	17,791	574
1993	22,271	438700	19,698	635
1994	25,414	450300	17,718	554
1995	22,269	385200	17,297	508
1996	24,773	448800	18,116	518
1997	42,895	736000	17,158	452
1998	45,407	790000	17,398	435

(Source – DGCIS)

Major Export Destinations of Indian Mango Fruit

The major destination of Indian mango exports have been Bangladesh and Saudi Arabia, where about 55 per cent mango is exported (Table 2). Other importing countries of Indian mangoes are United Arab Emirates (UAE), Kuwait, Bahrain, United Kingdom (UK) and Qatar. The flow pattern indicates that trade in fresh mangoes has taken place normally just across the border or within short distances which explains the domination of Indian mangoes in the West Asian markets. However, the low volume of trade in the international market is a reflection of the poor competitive status of the Indian mango industry. Even in the case of the mango fruit, Indian exports have improved mainly by lowering of the prices (in terms of dollars). The country's export earnings from mango fruit during 1998-99 were about Rs. 791.37 lakhs, which accounts for

Table 2 : Export Destination and Quantities of Mangoes Exported From India during 1998 – 1999

Country	Quantity (Tonnes)	Share (per cent)
Bahrain	1,842	4.06
Bangladesh	15,069	33.20
Kuwait	2,365	5.20
Qatar	1,663	3.66
Saudi Arabia	10,267	22.61
U.A.E.	8,902	19.61
U. K.	1,652	3.64
Others	3,650	8.02
Total	45,407	100.00

Source : DGCIS, Kolkota, APEDA – 1998 – 99.

5.63 per cent of the total earnings from export of horticultural products (APEDA – 1998-99).

Growth rates of Mango Fruit Exports from India

The export growth of fresh mangoes from India for the period 1990 to 1998 has been furnished in Table 3. The study revealed that, the quantity of mangoes exported to countries such as UAE, U.K. Netherlands, Japan, other countries as well as total volume showed a positive significant growth whereas those to Hong Kong depicted a negative growth (4.18%). The growth in quantity exported to various countries ranged from 33.87 per cent to 2.44 per cent.

Table 3 : Growth rates of quantity and value of Indian fresh mango exports (1990 – 98)

Sl. No.	Countries	Quantity			Value		
		Intercept	Slope	Annual Compounded Growth Rate (%)	Intercept	Slope	Annual Compounded Growth Rate (%)
1	UAE	9.09	1.02	2.44**	7.33	1.04	3.90**
2	UK	6.81	1.06	5.76*	5.00	1.11	11.46***
3	Netherlands	5.36	1.07	7.50	1.81	1.08	7.77
4	Hong Kong	3.96	0.96	-4.18	1.81	1.08	7.77
5	Japan	1.03	1.34	33.87*	-1.72	1.33	33.25*
6	Other Countries	8.98	1.13	12.97**	7.14	1.13	13.35**
7	Total	9.76	1.10	9.01**	7.97	1.10	10.02***

* Significant at 10 per cent level * Significant at 5 per cent level
* Significant at 1 per cent level

Though the exports to Netherlands had a positive growth of 7.50 per cent per annum, it was not a significant growth.

Among the countries, which established a positive growth, Japan stood at the top with 33.87 per cent growth per annum. This rate of growth was possible because Indian mango exports have been subjected to Vapour Heat Treatment (VHT) which improved the quality of the fruits by eradicating maggots present in the fruit. Japan has been very stringent in implementing quarantine and other important rules to maintain the quality of imported products. Further, Japan preferred to import mangoes from India because of lesser distance wherein cost of transportation would be lower besides delivering the mangoes within a short span. Other countries (Middle East countries) exhibited higher growth of their imports from India mainly due to the quality and also because of increasing Indian migrant population. So far as United Kingdom (UK) is concerned they have been preferring Indian mangoes for their premier quality since the colonial era. The same tradition has continued over the years which led to significant growth in mango exports to this country from India.

Exports to Hong – Kong depicted negative growth rate of quantity of mango exports but it was not significant. The possible reasons that could be attributed for this phenomenon are firstly the increased imports of mangoes from Pakistan and Sri Lanka. The second reason could be the changing political scenario i.e. from capitalized to communist governed economy that led to the changes in the import policies.

In the case of growth rate of value of mango exports a similar pattern was observed except in case of exports to Hong – Kong where the growth was positive but not significant. The possible reason could be inflation over the years, which has resulted in a positive growth in value terms in spite of a negative growth in the quantity of mango exports.

Policy Implications

1. To attain the goal of export of mangoes it was felt necessary to have an organization like mango federation on the lines of 'Maha Mango' of Maharashtra to monitor production, processing, marketing and export of mangoes. This institution is expected to liaise with other institutions like KAPPEC, CFTRI, SAUs, IIHR, and State Department of Horticulture for achieving its goal. Post harvest infrastructure for the promotion of export is expected to attract investment from the Government, the private sector and even individuals. The investment estimated is Rs. 1,026.41 lakhs.

2. As revealed by the compound growth rates, there exists a vast potential for the export of fresh mangoes to the U.A.E., U. K., Netherlands, Japan and other countries. Hence the government needs to strengthen and maintain international relations on a sustained basis.

3. There is a need for export promotion efforts through commodity promotional programmes for mangoes and mango products. An extensive awareness programme to disseminate information about consumers' preferences of the importing countries, suitable export quality varieties, advanced post harvest technologies and phyto sanitary restrictions are to be conducted at the producers' as well as processors' levels.

4. The opinion survey of the farmers revealed that shortage of credit, labour and overall mango technology formed the crux of the cultivation problems. The absence of an organized regulated market and infrastructure for mango was keenly felt by the farmers. Alternate bearing was found to result in wide price fluctuations in the face of limited market channels. Farmers expressed a desire to acquire post harvest technology, improved tools, specialized storage and transport and also the need for establishing additional processing units. They were aware of the export potential for their mangoes.

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