

Present Status and Future Prospects of export and Import of Fruits

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Abstract

Over the last decade, the area under horticulture grew by about 2.7 per cent per annum and annual production increased by 7.0 per cent. The production of horticultural crops was about 283.5 million tones from an area of 24.2 million hectares (ha). The area under cultivation of fruits stood at 6.35 million hectares. India ranks first in production of Banana (26.2 per cent), Papaya (44.40 per cent), Mango (including mango teens, and guavas) (41.90 per cent). The vast production base offers India tremendous opportunities for export. During 2016-17, India exported fruits worth of 3298.03 crores. Fruit cultivation in India is a prominent business sector for exporting merchandise and thus earning a good amount of international revenue. India being a home for wide variety of fruits holds a unique position in production figures among other countries. The cultivation of fruits in India mainly depends upon the quality of soils, harvest, plantation and a perfect ambience of brilliant minds. India stands second in fruit production in the world.

Keywords: Export; Import; Processing; Cold Storage; Transport.

Introduction

India's diverse climate ensures availability of all varieties of fresh fruits. It ranks second in fruits production in the world, after China. India has witnessed voluminous increase in horticulture production over the last few years. Significant progress has been made in area expansion resulting in higher production. Over the last decade, the area under horticulture grew by about 2.7 per cent per annum and annual production increased by 7.0 per cent. During 2014-15, the production of horticultural crops was about 283.5 million tones from an area of 24.2 million hectares (ha), during 2015-16, the production of horticultural crops was about 286.18 million tones from an area of 24.4 million hectares.

Mango, Walnut, Grapes, Banana, Pomegranate account for larger portion of fruits exported from the country. The major destinations for Indian fruits are UAE, Bangladesh, Malaysia, UK, Netherland, Pakistan, Saudi Arabia, Sri Lanka and Nepal. Though India's share in the global market is still nearly one per cent only, there is increasing acceptance of horticulture produce from the country. This has happened due to concurrent developments in the areas of state-of-the-art cold chain infrastructure and quality assurance measures. Apart from large investment pumped in by the private sector, public sector has also taken initiatives and with APEDA's assistance, several centers for perishable cargoes and integrated post harvest handling facilities have been set up in the country.

Capacity building initiatives at the farmers, processors and exporters' levels has also contributed towards this effort.

In India, vegetable and fruit cultivation and the processing industry are largely decentralized. After liberalization and pulling out excise duty on vegetables and fruit products, a significant rise in the industry has been recorded. Of temperate fruits, apples, plums, peaches, almonds, apricots and grapes are grown in abundance. While Jammu and Kashmir and Himachal Pradesh lead in the fruit production of the temperate region, others are grown in various parts of peninsular India and Northern Plains. There is ample investment opportunity for the expansion of export market for fruit cultivation in India. For increasing the fruit production of India, several efforts are being taken up by the Government of India, for instance, the state governments are lending grants for setting up orchards under the National Horticultural Mission.

Body

Performance of Fruits

The performance of fruits from 1990-91 to 2015-16 in India and Maharashtra is given in table 1.

It can be noticed from the table that, the area under fruits of India has increased by two folds and six folds of Maharashtra during the period under study. During the same period, the Maharashtra's share in India has increased by three times (8.91 per cent to 24.92 per cent). In case of production of fruits, Maharashtra's share was 21.28 per cent in the year 2015-16.

The information related to fruitwise area, production and productivity of major fruits in India and Maharashtra is depicted in table 2. It is revealed from the table that, Maharashtra contribute maximum share in India's area and production of grape (75.82 per cent and 83.54 per cent) followed by Pomegranate (68.82 per cent and 70.22 per cent) and Sapota (41.24

per cent and 27.20 per cent). The average per hectare productivity of Banana was 57 per cent which was more than the National average during 2013-14, followed by Grape and Pomegranate 10 per cent and 2 per cent more productivity than the National average during 2013-14, respectively.

Leading Fruit Producing States in India

Banana is the most widely grown fruit in India with estimated production of about 29.7 million tons in TE 2013-14 from an area of 802.57 thousand hectares. Tamil Nadu is the largest producer with a production share of 19.00 percent followed by Maharashtra (16.24 per cent), Gujarat (14.21 per cent) and Andhra Pradesh (10.65 per cent). Other important banana growing States are Karnataka, Bihar, Madhya Pradesh, West Bengal and Assam, each contributing more than 3 percent to national banana production (Table 3). Mango occupies second position amongst the fruit crops in terms of production. The total production of mango in the country in TE2013-14 was about 18.00 million tones from an area of 2.51 million hectares. Uttar Pradesh is the largest grower of mango with a production share of 23.33 percent. The other main mango producing states are Andhra Pradesh (14.84 per cent), Karnataka (9.52 per cent), Telangana (9.32 per cent) and Bihar (7.41per cent).Citrus fruits occupy third position amongst the fruit crops in terms of production. The total production of citrus in the country in TE2013-14 was about 10.78 million tones from an area of 1114 thousand hectares.

Andhra Pradesh is the largest grower of citrus with a production share of 42.4 per cent, followed by Maharashtra (18.1 per cent), Punjab (9.6 per cent) and Madhya Pradesh (7.2 per cent). These four states account for more than 70 percent of national production of citrus fruits. Papaya is the fourth largest fruit crop in the country. The production of papaya in the year TE2013-14 was about 5.6 million tonnes from an area 133 thousand hectares. Andhra Pradesh is the largest producer (27.38 per cent) of

Table 1: Performance of fruits in India and Maharashtra

| Sr. No. | Year | Area ('000' ha.) | India Production ('000' Tones) | Productivity (tones/ha.) | Area ('000' ha.) | Maharashtra Production ('000' Tones) | Productivity (tones/ha.) |
|---------|---------|------------------|--------------------------------|--------------------------|------------------|--------------------------------------|--------------------------|
| 1 | 1991-92 | 2874.50 | 28632.00 | 10.00 | 256.10 (8.91) | 3518.40 (12.28) | 13.70 |
| 2 | 2001-02 | 4010.20 | 43000.90 | 10.70 | 582.80 (14.53) | 8840.60 (20.55) | 15.20 |
| 3 | 2015-16 | 6301.00 | 90183.00 | 14.31 | 1570.82 (24.92) | 19192.92 (21.28) | 10.56 |

Source: NHB, 2015

Table 2: Fruitwise area, production and productivity (2013-14)

| Sr. No. | Crop | India | | | Maharashtra | | |
|---------|-------------|----------------|--------------------------|--------------------------|--------------------|--------------------------|--------------------------|
| | | Area ('000'ha) | Production ('000' Tones) | Productivity (tones/ha.) | Area ('000'ha) | Production ('000' Tones) | Productivity (tones/ha.) |
| 1 | Banana | 803.00 | 29725.00 | 37.00 | 83.00 (10.33) | 4830.60 (16.25) | 58.20 (57.29) |
| 2 | Mango | 2516.00 | 18431.30 | 7.30 | 485.00 (19.27) | 1212.50 (6.57) | 2.50 (-65.75) |
| 3 | Citrus | 1078.00 | 11147.00 | 10.40 | 287.60 (27.58) | 1725.10 (11.09) | 6.80 (-34.61) |
| 4 | Guava | 268.20 | 3667.90 | 13.70 | 40.00 (14.91) | 324.00 (08.83) | 8.10 (-40.87) |
| 5 | Apple | 313.00 | 2497.7 | 8.00 | -- | -- | -- |
| 6 | Sapota | 177.00 | 1744.30 | 9.90 | 73.00 (41.24) | 474.50 (27.20) | 6.50 (-34.34) |
| 7 | Grapes | 118.7 | 2585.3 | 21.8 | 90.00 (75.82) | 2160.00 (83.54) | 24.00 (10.09) |
| 8 | Pomegranate | 130.77 | 1345.72 | 10.29 | 90.00 (68.82) | 945.00 (70.22) | 10.50 (2.00) |
| 9 | Others | 953.33 | 17674.78 | 9.50 | 416.40 (43.67) | 1786.22 (10.10) | 9.50 (-10.52) |
| 10 | Total | 6358.00 | 88819.00 | 13.97 | 1565.00 (24.61) | 13457.92 (15.15) | 10.56 (-24.40) |

Source: NHB 2015

Table 3: Leading fruit producing States in India: TE 2013-14

| Sr. No | Crop | Major Producers |
|--------|-------------|--|
| 1. | Banana | Tamil Nadu (19.00%), Maharashtra (16.24%), Gujarat (14.21%), Andhra Pradesh (10.65%), Karnataka (7.6%), Bihar (5.4%), Madhya Pradesh (4.6%), West Bengal (3.7%), Assam (3.4%), Kerala (1.8%), |
| 2. | Mango | U.P. (23.33%), Andhra Pradesh (14.84%), Karnataka (9.52%), Telanagan (9.32) Bihar (7.4%), Tamil Nadu (5.3%), Gujarat (5.0%), Maharashtra (4.8%), West Bengal (4.2%), Orissa (3.1%), Kerala (3.0%) |
| 3. | Citrus | Andhra Pradesh (42.4%), Maharashtra (18.1%), Punjab (9.6%), Madhya Pradesh (7.2%), Gujarat (4.1%), Rajasthan (3.3%), Karnataka (3.0%), Orissa (2.6%), Bihar (2.4%), Assam (2.2%) |
| 4. | Papaya | Andhra Pradesh (27.38%), Gujarat (21.02%), Karnataka (8.43%), Madhya Pradesh (7.69%), West Bengal (9.0%), Chhattisgarh (4.7%), Assam (3.6%), Madhya Pradesh (2.6%), Tamil Nadu (2.0%) |
| 5. | Guava | Madhya Pradesh (23.00%), Uttar Pradesh (16.4%), Maharashtra 11.2%), Bihar (10.5%), West Bengal (7.5%), Punjab (7.1%), M.P. (5.6%), Gujarat (6.9%), Andhra Pradesh (6.7%), Karnataka (6.0%), Tamil Nadu (4.2%), Orissa (3.2%) |
| 6. | Apple | Jammu & Kashmir (69.0%), Himachal Pradesh (24.0%), Uttarakhand (6.5%) |
| 7. | Grapes | Maharashtra (83.54%), Karnataka (11.69%), Tamil Nadu (1.84%) |
| 8. | Sapota | Maharashtra (22.20%), Karnataka (20.96%), Gujarat (17.02%), Tamilnadu (15.13), Andhra Pradesh (14.16%) |
| 9. | Pomegranate | Maharashtra (70.22%), Karnataka (9.97%), Gujarat (7.38%), Andhra Pradesh (6.68%), |

Source: NHB, 2015

papaya followed by Gujarat (21.02 per cent), Karnataka (8.43 per cent) and Madhya Pradesh (7.69 per cent). Madhya Pradesh is the main producer of guava in the country accounting for about 23 percent of total production. The other main guava growing states are Uttar Pradesh, Maharashtra, Bihar, West Bengal, Punjab, Madhya Pradesh, Andhra Pradesh and Gujarat. Apple, a temperate fruit, is grown in Jammu & Kashmir, Himachal Pradesh and Uttarakhand and these three states account for more

than 99 percent of production. The other important fruit crops grown in the country are grapes, pineapple, sapota, and pomegranate. The production shares of major producers are given in Table 3.

Export of Fruits

India has been traditionally exporting / importing various agricultural commodities to / from the World market. Declining contribution of India's export of

products like tea and spices in the World trade is a matter of concern and it is important that we gear up to face the increasing competition and expand exports of tea, spices and other agricultural commodities or at least manage to retain the share in the World market. The preferences for high quality, low prices and regular supply of commodities coupled with stiff competition from other countries in the international market have imposed serious challenges to the Indian agricultural exports. The information related to the export performance of fruits during 2007-08 and 2014-15 is presented in Table 4. It is revealed from the table that, the export of Banana, grapes, mango and apple were increased during the year 2014-15 over the year 2007-08. The decrease in export during the year 2014-15 over the year 2007-08 was noticed in sapota and guava.

Import of Fruits

India imported fresh fruits of '1036093.71 lakhs in the year 2015-16. Export of fresh fruits decreased in 2016-17 to '1026267.00 lakhs. In case of fresh

vegetables, processed vegetables and processed fruits and juices the declining trend in import was observed.

Fruit Processing in India

Food processing sector is one of the largest sectors in India in terms of production, growth, consumption and export. India's food processing sector covers fruit and vegetables; spices; meat and poultry; milk and milk products, alcoholic beverages, fisheries, plantation, grain processing and other consumer product groups like confectionery, chocolates and cocoa products, soya-based products, mineral water, high protein foods etc. The national policy on food processing aims at increasing the level of food processing to 25 per cent by 2025

Government has also approved proposals for joint ventures; foreign collaboration, industrial licenses and 100% export oriented units envisaging an investment. Out of this, foreign investment is over Rs.10,000 crores. India's exports of Processed Food was Rs. 27,263.94 Crores in 2016-17.

Table 4: India's export performance of fruits

| Sr. No. | Crop | Period | | | |
|---------|--------|------------------|----------------|------------------|----------------|
| | | 2007-08 | | 2014-15 | |
| | | Quantity (tones) | Value (₹ lakh) | Quantity (tones) | Value (₹ lakh) |
| 1 | Banana | 16662.60 | 2607.94 | 63274.40 | 24194.77 |
| 2 | Mango | 54350.80 | 12741.72 | 42998.31 | 30253.65 |
| 3 | Guava | 2495.50 | 417.19 | 907.87 | 371.87 |
| 4 | Apple | 32655.30 | 3330.79 | 20374.70 | 5292.73 |
| 5 | Sapota | 2150.90 | 503.83 | 1372.11 | 818.09 |
| 6 | Grapes | 96863.00 | 31736.11 | 107257.86 | 108649.02 |

Source: NHB, 2015

Table 5: India's Import of principal Commodities

| Sr. No | Commodity | Period | | | |
|--------|-----------------------------|----------------|----------------|----------------|----------------|
| | | 2015-16 | | 2016-17 | |
| | | Quantity (Ton) | Value (₹ Lakh) | Quantity (Ton) | Value (₹ Lakh) |
| 1 | Fresh Fruits | 762802 | 1036093.71 | 928968 | 1026267 |
| 2 | Fresh Vegetables | 140695 | 39402.49 | 8528 | 1077.28 |
| 3 | Processed Vegetables | 13662.67 | 10763.90 | 12711.69 | 10852.33 |
| 4 | Processed Fruits and Juices | 34043.43 | 46535.23 | 38890.16 | 50086.38 |

Source: <http://www.dgciskol.nic.in>, Directorate General of Commercial intelligence and Statistics.

Table 6: Countrywise processing of fruits

| Sr. No | Country | Fruit Processing (%) |
|--------|-------------|----------------------|
| 1 | USA | 65 |
| 2 | France | 70 |
| 3 | Brazil | 70 |
| 4 | Malaysia | 83 |
| 5 | Philippines | 78 |
| 6 | Thailand | 30 |
| 7 | China | 23 |
| | India | 2.5 |

Source: www.mofpi.nic.in

The Indian food processing industry is primarily export oriented. India's geographical situation gives it the unique advantage of connectivity to Europe, the Middle East, Japan, Singapore, Thailand, Malaysia and Korea. One such example indicating India's location advantage is the value of trade in agriculture and processed food between India and Gulf region.

Retail, one of the largest sectors in the global economy (USD 7 Trillion), is going through a transition phase in India. One of the prime factors for non-competitiveness of the food processing industry is because of the cost and quality of marketing channels. Globally more than 72% of food sales occur through super stores. India presents a huge opportunity and is all set for a big retail revolution. India is the least saturated of global markets with a small organized retail and also the least competitive of all global markets.

Table 7: Growth of India's export of processed fruits (₹ Crores)

| Sr. No. | Items | Period | | % change over 2012-13 |
|---------|---------------------------------------|---------|---------|-----------------------|
| | | 2012-13 | 2016-17 | |
| 1 | Mango Pulp | 608.55 | 864.97 | 158.56 |
| 2 | Other processed fruits and vegetables | 1733.05 | 3116.07 | 179.80 |
| 3 | Processed fruit juice | 1155.95 | 1826.40 | 157.99 |

Source: www.apeda.com

urban and rural areas as well as among rich and poor households. Rising income, urbanization, a change in dietary preferences, socio-demographic factors, increased awareness about the health benefits of fruits and vegetables, food industry marketing and policies of trade liberalization over the past two decades have been major market drivers for the growth of high value agriculture.

The per capita consumption of fruits in India is very low e.g. USA 202 kg/capita/year, Pakistan 100 kg/capita/year and India 10 kg /capita/year. The low consumption of fruits is only due to very small fraction of the total cropped area under fruits. India needs to step up the production of fruits till the country becomes self sufficient and process of fruit fall to the level at which both rich and poor can afford to buy. The prices of fruits are so high, as to keep fresh fruits out of reach of large population with more efficient production and marketing, the price could be reduced as to increase consumption of fruits and still provide good profits to the grower.

• *Increasing Irrigation Facilities*

Most of the commercial fruit trees require perennial irrigation. The area receiving perennial irrigation which was 6 per cent in 1960 in Maharashtra

It can be seen from table 6 that Malaysia is the leading country in fruit processing (83 per cent) followed by Philippines (78 per cent). Though the India ranks second in world fruit production but far behind in fruit processing, only 2.5 per cent fruits are being processed in India. It can be seen from the Table 7 that the Mango Pulp export has increased by (158.56 per cent), other processed fruits and vegetables (179.80 per cent) and Processed fruit juice (159.99) in 2016-17 as compared with 2012-13.

Scope for Fruit Production

• *Need to Increase Production to Meet Dietary Requirements*

Throughout the World, major shifts in dietary patterns are occurring, even in the consumption of basic staples towards more diversified diets both in

reached a level of 12.5 to 13 per cent. By exploiting all the resources the maximum area that can be brought under irrigation would be 40 per cent of the total cropped area. Thus, there is still scope for increasing irrigated area in near future as government is giving priorities to such to works. This would be definitely help to increase area under fruit crops.

• *Scope for Increasing Area under Dry Land Fruits*

It is not entirely true that all the fruits require perennial irrigation. There are many fruit trees like ber, custard apple, cashewnut, anola etc. which are hardly in nature and can be grown purely under rainfed condition. In India, 86 million hectares and in Maharashtra 35 lakh hectares land is available for development of sound technology of rainfed horticulture; there is good scope to put these lands under dry land fruit crops. This would also be necessary to arrest shrinkage of land available for cultivation on per capita basis due to population pressure.

• *Increasing Urbanization and Change in Food Habits*

Increasing urbanization due to industrial growth has increased demands for fruits. Change in food

habits is also being noticed due to education and assured income which has also helped in increasing demands for fruits.

- *Increased Transport Facilities*

Most of the fruits are highly perishable, having less storage life and need quick disposal after harvest. Lack of good transportation system was one of the major constraints in expansion of fruits. However, now a days quick transport facilities by road, rail and air are available enabling growers to transport fruits to long distance markets in good condition in a short period of time. Increasing in transport facilities provide scope for fruit farming.

- *Increasing in Cold Storage Facilities and Pre- Cooling Center*

Fruits are highly perishable and have less shelf-life. During the peak harvest periods, the market gluts reduce prices of fruits. Cold storage facilities help to regulate market supply and stabilize the rates. Similarly, to extend shelf life, pre-cooling after harvest is necessary. Government of Maharashtra and also other agencies providing funds for developing these facilities in production centers this would help to increase more area under fruit crops in the years to come.

- *Scope for Agro- Based Industries*

Even after so much of industrial progress, country depends on agricultural sectors for employment. Development of agro- based industries to generate employment is a must to keep economy on sound footing. Besides sugarcane, fruit farming is the only area, where there is a potential to develop agro-based industries like canning and preservation and hence, the scope in near future.

- *Development of New Techniques*

Use of growth regulators, in situ grafting, drip irrigation for water economy, tissue culture, special horticultural practices like ringing, girdling, notching, bahar treatment, high density planting etc. will help to increase productivity and also to bring more land under cultivation.

- *Evaluation of New High Yielding Varieties and Introduction of New Crops*

Development of high yielding varieties of fruits like Pomegranate, Ganesh, P-23, P-26, G-137, Mango: Ratna, Amravati, Malika, Sindhur, Grapes:

Thompson seedless, Guava: Sardar, (L-49), Cashewnut-Vengurla No. 1,2,3,4 and 5,6,7,8 will bring more area under fruits. Similarly, introduction of commercial cultivation of some of the new crops like ber anola etc. indicate scope for area expansion.

- *Availability of Loan Facilities*

Fruit crops being capital intensive, lack of capital is one of the major hurdle in expansion. Now days, there are several cooperative and commercial banks providing finance for fruit farming which has increased the scope for it.

- *Government Incentive*

Realizing the need for area expansion of fruit crops, the Governments of Maharashtra have started a very ambitious programme of fruit development under which it gives 100% subsidy to marginal farmers and farmers from backward communities and 70% subsidy for others on establishment and maintenance of fruit orchard for a period of 3 year This will increase the area under fruits.

Conclusion

1. Government incentives and financing facilities should be increased to the Horticulture sector as this is more expensive one.
2. Development of agro- based industries to generate employment and Process the fruit products is a must to keep economy on sound footing.
3. Special Attention to be made for the dryland fruit cultivation as this is the major sector which can improve the fruit production with less irrigation facilities.
4. Market surveys in Europe and other markets have revealed that there is a good scope for export of grapes, mango, banana, pomegranate, citrus, ber, cashew to gulf and European markets The availability of these markets will increase area under these fruits.

References

1. NHB, Report 2015.
2. <http://www.dgciskol.nic.in>, Directorate General of Commercial intelligence and Statistics.
3. www.mofpi.nic.in.
4. www.apeda.com.