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Abstract

Cut flower has become an important commercial activity in agriculture sector in the post globalization era. Cut flower activity has marked as a viable and profitable trade area with a potential to activate self-employment among low and middle income farmers, and earn the very essential foreign exchange in the developing countries such as India. The world Cut flower production is growing at a rate of 10 per cent per year. Almost 45 to 50 countries are active in the production of Cut flower on a large scale. In terms of production value, the Thailand, Netherlands, USA, UK and China are in the top. The economic slowdown has affected the Cut flower industry internationally with demand for Cut flower products were declined in major countries, such as Europe, The USA and Japan. Depression in pricing has been observed across the product segments. The Cut flower sector in India is facing several challenges at the production level mostly related to availability of basic inputs, proper irrigation and skilled manpower. At the marketing stage also Indian traders are facing major challenges related to product diversification and product differentiation. With increasing involvement of super markets in flower business, managing transport is also becoming a critical factor for the Indian flower traders.

With this backdrop the present paper attempts to analyse the overall information on Cut flower as a part of horticulture, focusing on area, production and yield, apart from the information about price, market arrivals. And it also tries to bring out the scope and dynamics of international trade in Cut flower sector. Export and import performance, prospects and challenges of Indian Cut flower sector has been discussed in the study.

Key Words: *Area, Production, productivity, Export, Imports, International market, Floricultural Industry, Export Processing Zones.*

Introduction

Cut flower is a discipline of Horticulture and it includes cultivation of flowers and ornamental plants for selling or for use as an input materials in cosmetic industry as well as in the pharmaceutical sector. The present day floral industry is one of the most dynamic and fast growing industry, which has achieved significant rate of growth during the past few years and has extended worldwide with the major paradigm shift of production centers from developed to developing countries. India is also interested to emerge as an important production base for Cut flower output. Irregular climatic conditions, genetic variety, versatile human resources etc put India a unique scope for enormous employment of existing resources and exploration of avenues yet untouched.

The production and export of floricultural products have received a considerable interest in recent decades from the researchers, policy makers, agricultural and horticultural experts. It is often argued that horticulture and allied activities have to be given importance in view of the field's potential in employment, export and income generation. On this background, horticulture has been provided additional interest in recent years. The plan outlays have been stepped up in successive plans for development of horticulture as well as floriculture. However, in India, some states are not in this process. This may be due to lack of infrastructural facilities, guidance to farmers by the department of horticulture as well as unsuitable weather conditions. Further, after attaining self-sufficiency in food grain production, the policy focus is being directed more towards remunerative crops and export potential crops. An important emerging activity in horticultural sector is cutflower. This co-sector has been encouraged, because of its demand both in domestic as well as world markets. The increases in per capita income and urbanisation have led to a greater preference and increased demand for flowers and ornamental plants. At present, flowers are being extensively used in various nations. The testimony of this is mushrooming growth of florist

centers in urban areas. Still, this sector has a few bottlenecks. These have to be tackled and consequently the activity should become more remunerative to the agricultural farmers.

Rationale for the Study

In a recent days, though Cut flower is flourishing in India, it has not made any remarkable breakthrough in the domestic and international Cut flower markets due to various constraints. The country's share in the world total trade of fresh flowers is about 0.40 per cent to 0.50 per cent only as compared to Netherlands as much as 65 per cent, Columbia 12 per cent, Italy 6 per cent, Israel 4 per cent, Kenya 1 per cent and other countries share is about 20 per cent. The area under Cut flower although high compared to many countries, the area under protected cultivation is low compared to those countries. The proportion of area under floricultural area is 98 per cent in Colombia, 72 per cent in Netherlands and 57.00 per cent Italy. Where as in India it is only 0.76 per cent. The investments in this field and per capita consumption of flowers are also considerably very low when compared to developed countries like Japan, USA and Western Europe. As far as Indian Cut flower is concerned, it is constrained by lack of awareness, weak infrastructural support, lack of quality planting material, post- harvest facilities, exploitation by brokers, lack of sophisticated markets, weak database, and absence of information on income generation and employment generation from different Cut flower and export constraints. It is also viewed that a majority of the flower growers belong to small and marginal farmers' category, facing many constraints. Therefore, an attempt has been made to focus these issues in addition to give database for identifying the magnitude of problems and prospects of this field and also suggesting appropriate measures for tackling the problems of the growers and improving the floricultural industry.

Review of Literature

Armitrage (1992) studied various reports and reviewed the production of specialty cutflowers. He concluded that specialty flowers were economical in field, but not in the greenhouse. He studied the guidelines concerning cost of production of field grown specialty

flowers. According to his observation, any businessperson has ability to make profit, depending upon keeping cost of production down and factors that affect the which include cost location, size, and managerial skill, market channel, time of year and space utilization. Cut flower can be profitable if done efficiently.

Bose (1999) focused on the prospect of floriculture in India. He mentioned that commercial floriculture is an activity, which has assumed some importance only in the recent times. In most part of the country, flower cultivation has been carried out on smallholding, only as a part of the regular farming system. According to his study Tamil Nadu, Karnataka, West Bengal, Andhra Pradesh, Maharashtra and Rajasthan were the leading states in hi-tech floriculture. He also observed that more than two-third of the present floriculture are under cultivation of traditional flowers like marigold, jasmine aster, rose, chrysanthemum, crossandra, etc. The modern day cut flowers with stem e.g. rose, carnation, gladiolus, tuberose, orchid, etc. are growing.

Sharma (2000) has discussed the developmental activities of floriculture and credit support with the help of NABARD. He observes that major emphasis has been given to floriculture under controlled conditions. The states, which are contributing a lot of floriculture, are Maharashtra, Andhra Pradesh, Karnataka and Tamil Nadu. NABARD has much refinance to floriculture project. The bank has contributed in a very big way to improving the export earning of fresh flowers by the sanctioning of export oriented project in cut flowers.

Jitendra Singh (2002) stated that, apart from fruits and vegetables, floriculture industry in India comprising florist trade, nursery plants, potted plants seed and bulb product has been observed as sunrise industry. There has been soaring business of flowers in almost all metro cities in India. They observed that developed flower market has been set-up in various states in India. He mentioned that U.S.A is the major importer of the flowers across India.

Bhattacharji and Chandra De (2003) have given information related to traditional and modern floriculture in India. They observed that the highest number of small green house units for growing flowers was found in Maharashtra. They mentioned many problems had been faced by flower industry e.g. lack of basic infrastructure, non-availability of pesticides, high cost of production, tax burden, import duty, high rate of loyalty, poor facilities for post harvest handling, poor market information, delay in claiming subsidies, etc. They observed major constraints faced by traditional flower growers, such as lack of availability of good quality planting material and seeds, lack of adequate storage facilities and transportation, etc.

Bose et al. (2003) discussed the matter of traditional flower production in India. They remarked that, there has been tremendous increase in area under all the major flowers. They have classified the flowers in seasonal and perennial flower and they mentioned that jasmine and rose are used as raw materials for the preparation of perfumeries and used as raw material in dried flower industry.

Authors also commented on marketing channels of traditional flowers. They, after review of the studies on flower marketing, indicate that more than 60 per cent of cultivators sold their flower through commission agents at the market. They remarked the commission agents play an important role in marketing of the flowers. Farmers prefer to sale with pre-harvest contractors due to high cost of marketing price, risk in the market, need for immediate cash, etc.

Ramkumar and Ajith (2003) in their article on dry flower production and export” have given importance to economics and marketing. They expressed that dry flower industry is important as far as fluctuation of price level. There are flowers near natural dried, preserved and processed which is cheaper year round availability of raw material, reducing transport cost, dried arrangements are time savers and these suit the modern times, not dependable on weather. They say second aspect of importance is labour intensive industry. India has a share of 10 per cent of the total global dry flower market. This business can run with small size.

They worked out economics of dry flowers. It shows that the entrepreneurs can earn 100 per cent net profit by selling floral craft items made out of dry flowers. According to their study, if the floral craft item cost is Rs.1, it can be sold at Rs. 2. They recommended this specialized industry needs special attention and encouragement by the government.

Prasad and Kumar (2005) in their book “Commercial Floriculture” have stated that each crop has its own science and technology, and floriculture is one of the branches of horticulture. Ornamental horticulture more appropriately covers the complete industry of flowers. Floriculture has by far a greater annual growth potential of 25 to 30 per cent, which is 25 to 30 times more than that of cereals or any other agricultural produce. India being especially well placed to meet the international demand of cut flowers that peaks during winter months. They remarked the government has approved 24 projects with total foreign investment of 847crores cleared to boost flower export. Though Indian companies produce more quantify of cut flowers, but India is not a major user of cut flowers. Therefore India needs to export the flower, for which Holland is the major auction market for the international business of cut flowers.

Objectives

- To analyse the trends in area, production and yield of floricultural crops in India
- To study the infrastructural facilities available for Cut flower development in India
- To study the trends in domestic as well as international flower markets
- To suggest policy measures for the growth of Cut flower sector.

Scope

Cut flower comprises both traditional and modern flower crops. The traditional flowers are grown in open-air conditions. These include chrysanthemum, marigold, champaka, rose, tuberose, aster, jasmine, crossandra, etc. Usually the modern flowers are grown in controlled conditions (Green Houses). These include gerbera, roses, carnation, etc. Although, both steps are important, the traditional Cut flower is more important as it is

predominant in the country in terms of area, production, productivity and has been moving towards modern techniques. Hence, the proposed paper has attempted to analyze the growth trend of Cut flower in India.

Methodology and Data Collection

The study is based the secondary data. The secondary data is collected from various reports and documents of Horticulture Department, Government of India. This has enabled us to analyse the trends in area, production and yield of both traditional and modern cutflower, programmes and outlays for Cut flower development in the Country and infrastructural facilities across the States. Information and the data has also been collected from National Horticulture Board (NHB) and Agricultural and Processed Food Products Export Development Authority (APEDA) to know the provision for Cut flower development as well as flower business.

The analysis of secondary data relating to area, production and exports mostly pertains to the period from 2000-01 to 2015-16. The data have been analysed by simple tabular method. The simple averages, percentages and growth rates have been worked out.

Cut flower Development in India: Discussion

Introduction

The need for diversification to horticulture sector was acknowledged by the Government of India in the mid-1980s by focusing on investment in this sector. Presently horticulture sector has established its existence in improving income through generating employment, increased productivity and in promoting exports. Consequently, horticulture has moved from rural traditional confines to becoming a commercial hub. The Department of Agriculture, Cooperation & Farmers Welfare of the Ministry of Agriculture & Farmers Welfare is the nodal department for looking horticulture development in the nation. It implements different programmes and projects through the Departments of Horticulture in all the states and provinces. Very recently the scenario of Cut flower as well as horticultural

crops in India has become very encouraging. The percentage share of horticulture output in agriculture has become more than 30%. Under the purview of agriculture and allied activities, the share of plan expenditure for horticulture crops which was 4 % during Ninth Five Year Plan, has increased to 5 % during the Twelfth Plan.

Today Cut flower industry is a growing industry in the World. This sector, according to international trade classification, encompasses

(1) bulbs, tuberous roots and tubers
(2) other live plants
(3) cut- flowers and flower buds, dyed, bleached, fresh dried, impregnated or otherwise prepared, and

(4) foliage, branches and other parts of bushes, mosses, trees shrubs and other plants lichens and grasses, being goods of a kind suitable for bouquets or ornamental purposes, bleached, dried, fresh, dyed, impregnated or otherwise prepared. In India, Cut flower is emerging as a most important commercial crop. Very much importance has been given to this field due to its multiple angles, it fulfills the necessities of the people, this is apart from generating more and more employment, assuring higher rate of returns to rural agricultural people and facilitating them earning more and more income in terms of foreign exchange. The production of flowers is very traditional occupation. This does not find a place in the literature on horticultural crops, until early 1992, the growing and selling of flowers was confined to a very few limited families. They grew a variety of flowers on the same land which were sold nearby their house, as they could not make a long journey. Their work was limited to very small area. The situation in the before last decade has changed. Now a days, different farmers are growing different flowers both for domestic market and international market.

During the 12 th Five Year Plan (2012-17), the Department focused on strengthening of the infrastructure facilities, providing of improved germ plasma, adequate market support, re-

modeling, awareness about pre- and post-harvesting technologies, development, and restoration of parks and gardens besides bringing improvements in equipments for speedy and scientific of maintenance of parks.

Area under Cut flower

One could not find any reliable data on Area under cut flower. Due to different parameters in measuring the cultivated land, the available data will be varied. It was estimated that the area under Cut flower in India was 4,000 hectares in 1969 and 7,500 hectares in 1976 (National Commission on Agriculture (NCA) 1976). The National Horticulture Board (NHB) provided more reliable data on cut flower. According to this, the area under Cut flower at all India level had increased from 53,000 hectares in 1993-94 to 88,609 hectares in 2000-2001 and 2,78,000 hectares in 2016-17 with an increase of approximately 2,00,000 hectares over 15 to 16 years which has shown a land mark in the horticulture crops. The ratio of area under traditional Cut flower was accounted for 0.70 per cent of the total horticultural crops and 0.06 per cent of the gross cropped area in 2000-2001. This is well ahead of the projected area of 0.51 million hectares by the National Commission on Agriculture (NCA) for 2001 A.D.

Over the study period of 16 years from 2012-03 to 2016-17 the area under Cut flower crop has been increased which has shown in the Table 2.1. The area under Cut flower was 1,06,000 hectares in 2002-03 whereas it was 2,54,000 hectares in 2012-13 and it is witnessed for more than double in a decade. In 2016-17 it has 2,78,000 hectares as highest. If we see the decadal growth of Area has improved in a rapid manner which indicates the positive sign in the sector of Cut flower in India. Compound Annual Growth Rate (CAGR) of 8.9 is registered with this trend.

Table -1
Area, Production and Productivity of Cut flower in India

Year	Area (in 1000 HA)	Production (in 1000 MT)	Productivity
2002-03	106	535	5.0
2003-04	70	735	11.0
2004-05	101	580	5.7
2005-06	118	659	5.6
2006-07	129	654	5.1
2007-08	144	880	6.1
2008-09	166	868	5.2
2009-10	167	987	5.9
2010-11	183	1021	5.6
2011-12	191	1031	5.4
2012-13	254	1652	6.5
2013-14	233	1729	7.4
2014-15	255	2297	9.0
2015-16	249	2143	8.6
2016-17	278	2184	7.9
2017-18 (estimated)	309	2246	7.3
CAGR	8.9	11.1	

Source: 1. National Horticulture Board: Horticulture Data Base-2016
2. Economic Survey-2016-17, Government of India.
3. Horticulture Statistics Division, Department of Agri. & Cooperation.

During 2015-16, Cut flower covered an area of 0.24 million hectares, with total production of 2.01 million tons of flowers. This sector offers opportunities for generating income and employment, especially for women. Noticeable advancements have been made in recent decades in flower production, particularly, in the production of cut flowers, which have potential in terms of exports. The main cut flowers being grown are roses, orchids, gladiolus, carnation, gerbera, anthurium and liliun. The important flower growing states are West Bengal, Karnataka, Maharashtra, Tamil Nadu, Odisha, Uttar Pradesh, Andhra Pradesh, Jammu and Kashmir and the North Eastern states. A major part of the area under flower cultivation is devoted to the production of marigold, roses, chrysanthemum, jasmine,

tuberose, etc. The field under cut flower cultivation has increased significantly in the recent years.

Cut flower production has been increased from 535,000 tons to 2,246,000 tons during the study period of 15 years and it is accounted for the Compound Annual Growth Rate (CAGR) of 11.1 per cent. The major traditional flowers grown are Marigold, Jasmine, Rose, Aster Crossanda and the cut-flowers with stem include Rose, Gladiolus, Tuberose and Carnation, hibiscus, China Aster, several annuals as Gonphera, Cocks, Comb, Golden Rod, Dahlia, Zinnia and Sunflowers. The favourable factors such as warm temperature, soil conditions, relatively cheap labour, different agro-climatical zones have helped the growth in area and production in the country. When we compare the growth rates of area under flower as well as production to that of horticultural crops (Table 2.2), it is found that the growth rates were much higher in case of flowers than horticultural crops.

Table - 2
All India Area and Production of Horticultural Crops

Year	Area (in 1000 HA)	Production (in 1000 MT)	Productivity (MT/HA)
2002-03	12770	96562	7.5
2003-04	16592	145785	8.7
2004-05	16270	144380	8.8
2005-06	19208	153302	7.9
2006-07	18445	166939	9.0
2007-08	18707	182816	9.7
2008-09	19389	191813	9.8
2009-10	20207	211235	10.4
2010-11	20662	214716	10.3
2011-12	20876	223089	10.6
2012-13	21825	240531	11.0
2013-14	23243	257277	11.0
2014-15	23694	268848	11.3
2015-16	24198	277352	11.4
2016-17	23417	283468	12.1
CAGR	3.6	3.0	

Source: 1. National Horticulture Board: Horticulture Data Base-2015
2. Economic Survey-2015-2016, Government of India.
3. Horticulture Statistics Division, Department of Agri. & Cooperation.

The Table-2 presents the Area, production and Productivity of Horticulture crops. In case of area it was 12770 hectares in 2002-03, 21825 hectares in 2012-13 and it has increased to 23417 hectares in 2016-17. The CAGR of area over the period is 3.6 percent. In terms of productivity also horticulture crops accounted for positive trend and Compound Annual Growth Rate of 3.0 percent. The growth rate of Horticulture crops in terms of area and production is very low as compared with Cut flower crops. But productivity point of view horticulture crops have positive sign as compared with floricultural crops.

Table-3 shows the growth trend of Area and Production in terms of Hectare and Metric ton. In the year 2012-13 Area as well as Production witnessed for the growth of 33 % and 60.2 % respectively. Over the period of four years the growth of Production has been declined from 1.0 per cent in 2011-12 to 0.4 per cent in 2014-15. But the growth trend of Area has been raised from 4.4 per cent in 2011-12 to 24.4 per cent in 2015-16..

Table 2.3
Annual Growth Trend of Indian Cutflower
(From 2010-11 to 2015-16)

Year wise	Area	Producti on
2011-12	4.4	1.0
2012-13	33.0	60.2
2014-15	-8.3	4.7
2015-16	9.5	1.5
2017-18	24.4	0.4

Source: 1. National Horticulture Board: Horticulture Data Base-2015
2. Economic Survey-2015-2016, Government of India.
3. Horticulture Statistics Division, Department of Agri. & Cooperation.

The flower markets in India

The major markets for flowers are situated in the states, which produce large quantities of flowers. Kerala is one state that has a fairly large market without any production

of flowers. Some states, particularly Southern states, have more than one big markets in the state as the area under flower cultivation is widely distributed. The major markets in terms of traders involved are in the peninsular and east India. The major markets in peninsular India are Coimbatore, Madras, and Madurai in Tamil Nadu; Trivandrum and Cochin in Kerala; and Bombay and Pune in Maharashtra; Mysore, Bangalore and Dharwad in Karnataka; Hyderabad and Vijayawada in Andhra Pradesh. Mumbai has three large markets. Kolkata in the east is probably the big one. In addition to the market in the city of Kolkata, there are several fairly large regional flower markets in West Bengal. In the north probably Lucknow/Kannauj and Delhi are the huge market for flowers. In spite of a long tradition of Agriculture and Cutflower, India's share in the global market for these flowers is very negligible. During the last decade, taking advantage of the incentives offered by the Government, a number of Cut flower firms were established in India for producing and exporting flowers to the developed countries.

Government of India has considered Cut flower industry as a fast growing industry and fully export oriented business in this decade. Due to continuous increase in demand for flower, Cut flower trade has become one of the most important Commercial trades in horticulture as well as in Agriculture. Cut flower in India, is considered as a high growth Industry, Commercial Cut flower is becoming an important from the export point of view. The liberalization of seed policy in the late 1980s and globalization of the Indian economy and the economic reforms initiated in the early 1990s and the signing of WTO in 1996 paved the way for investment in hi-tech cutflower. In between 1990 and 1995, about 180 export-oriented Cut flower units with 1,545 million stems capacity (small and big) were started in various parts of the country involving more than 1,500 crores for growing 40 varieties of roses in an area of 500 hectares, of which 70 units are operational. Many of them operate less than 50 per cent of their capacity.

Table -4: Export of Flowers (India)-2016

Sr No.	Country	Qty (in MT)	Value (Million)
1	U S A	3,765	992
2	U K	2,473	688
3	Germany	2,444	625
4	Netherland	1,811	580
5	U Arab Emts	1,441	345
6	Canada	749	179
7	Singapore	1,314	161
8	Italy	555	161
9	Japan	366	148
10	Australia	285	138
11	China P Rp	495	127
12	Malaysia	508	118
13	Poland	329	90
14	Saudi Arab	529	75
15	Spain	186	66
	Total	17,250	4493

Source: DGCIS Annual Report, 2017

The distribution of flower export from India to rest of the world has mentioned in the Table -4. the highest portion of the flower i.e. 3765 metric ton with the value of 992 million rupees has gone to USA followed by UK, Germany, Netherland and United Arab Emirates with 2473, 2444, 1811 and 1441 metric ton value of 688, 625, 580 and 345 million rupees respectively. According to DGCIS-2017 the quantity of Indian Cut flower export was 17250 metric ton and the total value of export was 4493 million rupees which shows positive trend in the international market.

Maharashtra, Karnataka, Andhra Pradesh , Haryana, Tamil Nadu , Rajasthan , West Bengal (Indian States) have emerged as major Cut flower centers. About 248.51 thousand hectares area was under Cultivation in Cut flower in 2015-16. Production of flowers are estimated to be 1,685 thousand tones loose flowers and 472 thousand tones cut flowers in 2015-16. The country has exported 22,518.58 MT of Cut flower products to the world for the worth of Rs. 479.42 crores in 2016-17. United States, Germany, United Kingdom,

Netherlands and United Arab Emirates were major importing countries of Indian Cut flower during the same period.

Table-5: Import of Flowers (to India)

Country	[Value in Million Rs]			
	2012-13	2013-14	2014-15	2015-16
Thailand	113	218	382	456
Netherlands	302	332	371	329
China, People's Republic	63	93	82	100
Italy	11	18	32	55
United Arab Emirates	45	39	31	13
United States of America	13	17	30	22
Spain	9.7	12	29	22
United Kingdom	20	19	28	16
Israel	19	29	20	19
South Africa	2	4.7	17	5
Others	87	75	100	96
Total	686	857	1122	1134

Source: DGCIS Annual Report, 2017

Value of imports of Cut flower to India from rest of the world for the period of four years from 2012 to 2016 has exhibited in Table 2.5. India imports flowers largely from Thailand followed by Netherlands, UK, Israel and United Arab Emirates. In the year 2015-16 India imports the flowers with the value of 456, 329 and 100 million from Thailand, Netherlands and China respectively. Value of total imports has increased from 686 million in 2012-13 to 1134 million Rs in 2015-16. It was doubled in four years.

Agriculture Export Zones of India

In India there are number of Agriculture Export Zones (AEZ) in many states. Flower exporting Zones are there in four to five States namely Karnataka, Uttarkand, Maharashtra and Tamil Nadu. And the Zones (Districts) with their respective states are mentioned in the Table -.6.

Table-6: Agri -Export Zone (AEZ) of India (Flower exporting zones)

S No	State	Districts / Area
1	Karnataka	Bangalore (Urban), Bangalore (Rural), Kolar, Tumkur, Kodagu and Belgaum
2	Uttarkand	Dehradun, Pantnagar, Udham Singh Nagar, Nainital and Uttarkashi
3	Maharashtra	Nasik, Sangli, Sholapur, Satara, Ahmednagar
4	Tamil Nadu	Dharmapuri

Source: National Horticulture Board (NHB) Publication

With over 300 million middle and higher income population, India is the world's 2nd largest consumer base and fastest growing retail destination. Flower consumption, now a days in India, is getting boost for numerous reasons such as many festivals, rituals, religious activities, marriages and other functions, decoration for all the function along with increasing modernization and per capita income, forced India to become a floral super power of the future. A huge domestic market witnesses a high quality export oriented flower production by providing a strong competitive environment. India, Bangladesh, Sri Lanka, china and Pakistan and other countries of the region make South Asia, the world's big market and India is emerging as world's fastest growing flower market. Indian Cut flower market that can simultaneously create a millions jobs in the rural areas. Surely, many factors are conducive for the growth of Cut flower in India and to meet the growing needs of both domestic and export markets. To upgrade the industry, India has emerged as one of the largest importers of new varieties from international breeders, planting materials, greenhouses, cold chain

machineries, irrigation fertigation products, florist & floral art accessories, fertilizers and packaging solutions from the Netherlands, Germany, France, Spain, Taiwan and china.

Conclusion

At the county level in India, one can find only a bit of progress in the area of Cut flower on account of various constraints. This is reflected from its meagre share in the World floricultural trade. The country's share in the world business of flowers is only just 0.41 per cent to 0.55 per cent which is also low as compared to Netherlands 59 per cent, Italy 6 per cent, Columbia 10 per cent, Israel 4 per cent, Kenya 1 per cent and other countries 20 per cent. The area under Cut flower is also comparatively low compared to many other countries. The per capita consumption of flowers is also considerably low when compared with other developed countries like USA, Western Europe and Japan.

In spite of strong productive base, India's export of floricultural product is not so encouraging. The low performance is attributed to many obstacles such non availability of proper space in the airlines, since most of the airline owners prefer heavy consignments. The current number of flights during the peak seasons is not sufficient for transport. Exporters for infra-structural problems like inadequate refrigerated transport, bad interior road, and storage facilities. Lack of intensive backup of delivery and encouraging companies, which resort into high cost of technology for Indian producers. In order to overcome these problems, attention must be focused on – Reduction in import duty on planting material and equipment. Transportation cost of export is to be reduced to a minimum level. Sufficient and enough cargo space may be provided in airlines. In order to promote the heavy production of import substitution goods, Cut flower must be considered in priority. In India land holding problems and inherent legal provisions make the production and productivity to negative growth of agri production.. Co-operative societies must be established at regional level in each and every state. Exporters of Cut flower must plan and monitor effective quality control measures

starting from beginning of the production to post harvesting, its storage, and finally the transportation.

Suggestions

Government has to take care of Infrastructure facilities in Cut flower sector. The problem of small holdings, Inputs, Irrigation, Finance, Storage and Transport facilities. The area under Cut flower should be enlarged so that the production will be increased.

India's performance in the global Cut flower market is not upto the mark in comparison to several other countries. The major reasons behind such lackluster performance are:

1. Absence of proper and adequate infrastructure,
2. Lack of proper technical knowledge
3. Lack of sale and export promotion activities etc. Indian Cut flower is mostly in small scale and unorganized in nature.

For boosting India's Cut flower export and to capture more share in overseas market a host of measures are to be undertaken by both the Government as well as the private agencies involved in production and export of floricultural products. Some of the issues that need immediate attention are:

- Increase in the production of value added products like dry flowers, seeds, potted plants, micro propagated plants etc.,
- Organising appropriate training for personnel involved in production and export of floricultural products,
- To make the producers and exporters aware about effective quality control measures,
- Establishment of appropriate marketing and distribution channels,
- Setting up of more export processing zones for Cut flower products etc.

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Author Biography



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