

Rural Non-Farm Sector in India –A study on Performance of Floriculture Industry

1. Prof.P. Jayalakshmi ,Dept. of Economics, jayavinod9@gmail.com
- 2 .Prof.Ch.Annapurna, . Dept. of Telugu, drannapurnasjcw@gmail.com
3. Mrs. K.Prameela Rani, Asst.Prof.Dept. of English, prameelarani@stjosephsvizaq.com
4. Dr.Sr.Shyji, P.D, Dept. of Commerce,vincysja1@gmail.com

St.Joseph's College for Women (A), Visakhapatnam.

ABSTRACT

Background: India predominantly an agrarian economy and more population depends upon agriculture and its allied activities in rural areas. Hence an overwhelming majority of rural population is mainly depending on agriculture sector both for its employment and livelihood. However, gradually the yield of the farm cultivation decreasing and decreasing their incomes due to unpredictable phenomena.. The rural non-farm sector comprises of wide ranging activities which are directly or indirectly related to and supporting to various agricultural and non-agricultural based economic activities. The activities related animal husbandry, fishing, and forestry and logging form the part of agriculture sector are commonly included in non-farm sector. Other rural non-farm economic activities consists of various traditional and modern manufacturing, mining, quarrying, construction, trading, transport, communication, storage, hoteling, etc. In order to overcome from the persisting problems of un-employment, poverty and a high incidence of out-migration of active population the diversification of economics from subsistence-cantered agriculture to commercialised production of farm and non-farm products has been recognised among the most important alternative options and a necessary policy initiatives. **Introduction:** In this context, the role of Rural Non-farm sector becomes indispensable for sustaining the rural economy. The rural non-farm sector activities are including mining, construction, quarrying, transport, trade, processing, handloom, handicrafts, tourism, poultry, floriculture and other services. In this paper, the performance of Floriculture in India as well as Andhra Pradesh are studied. Floriculture was gained prime place in terms of Production and trade. Floriculture is an age old farming activity in India, having great potential for creating gainful self-employment among rural economic activities. In recent times, it has developed as a gainful agri-business in India. **Objective:** The main objective of the study is performance of Floriculture in terms of trade and Production to generate employment and income. **Methodology:** This study based on secondary data collected from various latest Government Reports, Journals, Magazines, Books and Websites etc. The percentages are given to the variables in production, exports and imports. The values are given Physical quantity (MT) and monetary (Rupees). **Findings:** The Floriculture improving in terms of production, trade, entrepreneurship and generating employment but there is a need to launch more schemes and programmes towards its development, and also strengthen the existing facilities providing by the Government. **Conclusion:** Government of India identified floriculture as a sunrise industry and secured high export oriented position. So in the present context, new schemes and development programmes are necessary to develop the Floriculture industry in India.

Keywords: Floriculture, Entrepreneurship, Employment, Exports, Sunrise industry.

1. **Introduction:** India has a long culture and tradition of floriculture. Evidences are shown in ancient Sanskrit classics like the Vedas and Upanishads. The social and economic aspects of flower growing were, however, recognised later. With changing life styles and increased urban affluence, floriculture has assumed a definite commercial significance in recent years and during the past 4 decades particularly. The commercial activity of production, employment, and trade of floriculture products is also a source of gainful and quality employment. Most of the developing economies giving much priority to rural non-farm activities due to the increasing inability of the farm sector to help rural livelihoods. In recent years, there has been an increasing recognition that the rural economy is not confined to the agricultural activity alone. This is due to the increase of poverty in rural areas with disguised unemployment to provide sustainable livelihood opportunities in many parts of the globe.

Floriculture is one of the most potential components of the Horticulture Industry, being important from aesthetic, social and economic points of view. It has the potential for generating employment opportunities round-the-year and earning foreign exchange. In many countries, different floricultural value-added products are the main export items from the agriculture sector. Floriculture production and market is booming now-a-days due to increase in demand both in national and international market. USA and United Kingdom are two best markets for India floral export, but national market is very much fragmented, that gives emerging of many associations. Understanding of major market both at brick and click way, gives the stakeholders a better way of understanding of floral market.

2. **Objectives of the study:** The main objective of the study is to know the present position of Non-farm sector in India, especially Floriculture development in the nation.
 1. To study the Rural Non-Farm Activities importance in the Indian economy.
 2. To assess the Floriculture culture industry performance in India
 3. To Observe the Government Policies and Programmes
 4. To identify the main issues and challenges of floriculture Industry in India

3. **Methodology:** The study based on secondary data. The secondary data collected from various Books, Journal Articles, Government Reports, Magazines and websites.

3.1 Period of the Study: This study observe and collected data for 3 years i.e. 2015-16 to 2017-18 in terms of Exports, Imports and State-wise Productivity of Loose flowers.

3.2 Performance will be measured in terms of Exports and Imports values are taken in terms of Physical quantity in MT, Value in terms of Rupees Lakhs.

3.3 Floriculture production was collected per hectare production

4. **Review of Literature:** Review of literature is an essential part of any research work. Based on the successful experience of some southeast Asian countries the promotion of non-farm rural activities is currently encouraged as an alternative measures for poverty reduction. (Barrett, 2001).

Vishnu Swarup (1997) point out that the new economic policy of the Indian government has encouraged foreign investments in floriculture.

Dadalani N.K. (2002) points out that India is among the important agriculture- based economics in the developing world and has in the recent years recognized the importance of floriculture as a segment of agri-business

SatyaSundaram I. (1999) views that the liberalization of the country's economy has given a boost to agri-business particularly floriculture. The prospect of better returns on value-added floriculture items has attracted private investors. Floriculture -defined as all activities related to production and use of flowers, ornamental plant seeds and bulbs, is eco-friendly and can be an important source for earning foreign exchange.

According to Debajit et al (2016) discussed the recent development of floriculture industry in India, particularly in terms of production of cut flowers and the growth of the industry and its trade with the world. Time series data covering a period of last 2 decades have been used for the study. This paper also reports on the global trade scenario for floricultural products including the major trading countries and their trade. In first decade did not see substantial growth in export of floricultural products from India. But in second decade export increased at a CAGR of 4.33%. India's share of global floriculture trade is only about 0.6%.

5. Results Analysis:

In India, the rural Non-farm activities are perceived to be a potent source of employment to the growing labour force in the face of heavy demographic pressure on farming. India is the World's second largest consumer for flower, plant and Industry. Employment generation also increasing in flower cultivation and in marketing. This industry leads to introduce and increasing perfume industries in the country. Flowers can be a source of earning large amount of foreign currency by exporting them. Flowers can be consider a trade commodity and it enhance the earnings of producer. The area under flower production are varied among states in India. In this study area wise production, exports, Imports, State wise production and productivity were covered.

Table-5.1Area under flower production in India

STATE	AREA(Hect.)
Karnataka	19,161
Tamilnadu	14,194
West Bengal	12,285
Andhra Pradesh	5,933
Maharastra	3,356
Rajasthan	1,985
Haryana	1,540
Madyapradesh	1,270
Uttar Pradesh	1000
Delhi	1878
Others	2,166
total	64,768

Source: APEDA website accessed on 12-09-18, Horticulture Statistics at a Glance, 2018.

The above **table-5.1** shows that the state wise and area (hect) wise flower cultivation in India. The first place occupy by Karnataka followed by Tamil Nadu, West Bengal, Andhra Pradesh, Rajasthan, Delhi, Haryana, Madhya Pradesh, and Uttar Pradesh. Other countries are producing under the area of 2166 hectares. The total area of Flower cultivation in India is 64,768 hectares.

Table 5.-2State wise area and Production of Loose Flowers (Total)

State/UT		2015-16		2016-17		2017-18	
		A	P	A	P	A	P
1	Andhra pradesh	18.25	147.28	19.03	269.53	25.74	428.95
2	Arunacahalpradesh	0.02	0.01	0.02	0.01	0.00	0.00
3	Assam	5.05	33.68	5.03	33.76	5.06	33.93
4	Bihar	0.66	7.88	0.66	7.96	0.55	5.54
5	Chhattishghar	11.43	4320	11.92	48.38	13.18	47.45
6	Gujarath	19.50	184.16	20.64	195.98	20.43	152.16
7	Haryana	6.02	63.03	5.51	56.23	5.49	56.73
8	Himachal Pradesh	0.72	23.40	0.71	17.95	0.64	12.35
9	Jammu and Kashmir	49.09	29.41	49.58	29.70	49.58	29.70
10	Jharkhand	0.32	1.53	1.05	13.33	0.80	4.47
11	Karnataka	31.68	230.40	52.37	238.73	31.36	230.96
12	Kerla	12.88	0.02	16.05	0.03	38.25	0.08
13	Madhya Pradesh	18.42	216.00	17.67	146.76	19.79	245.55
14	Maharashtra	12.00	71.26	6.78	35.78	5.49	29.08
15	Manipur	0.17	0.07	0.08	0.05	0.16	0.49
16	Meghalya	0.06	0.00	0.01	0.00	0.01	-
17	Mizoram	0.13	0.56	0.02	0.46	0.24	-
18	Nagaland	0.07	0.89	0.05	0.02	0.07	-
19	Odisha	6.56	24.78	6.57	24.82	6.61	24.91
20	Punjab	2.00	12.46	2.05	12.82	2.07	10.67
21	Rajasthan	3.33	5.85	2.71	4.03	3.49	7.07
22	Sikkim	0.24	16.30	0.24	16.50	0.24	16.50
23	Tamilnadu	30.59	422.44	32.37	416.56	34.23	482.52
24	Telangana	3.71	13.98	2.95	10.06	3.71	17.92
25	Uttar Pradesh	17.20	34.34	21.00	45.97	21.22	46.42
26	Uttarkhand	1.54	1.75	1.40	2.07	1.53	2.54
27	West Bengal	25.63	69.62	26.04	71.27	26.78	74.88
	OTHERS	0.34	1.36	3.59	0.68	7.33	1.17
	TOTAL	277.57	1656.24	306.28	1699.42	324.00	1962.03

Source: APEDA website accessed on 12-09-18, Horticulture Statistics at a Glance, 2018.

The above **table 5.2** shows that State wise area and Production of Loose flowers in India. Among all states first place occupied by Jammu & Kashmir with large area coverage under Loose flower Production, followed by Karnataka, Tamilnadu, West Bengal, and Gujarat. During three years fluctuations are noticed. The main reasons for production fluctuations are climate, demand, Cost of production, manpower etc. In other states the area under cultivation and production of loose flowers are very less and in some states declining trends also recorded. The main reasons are climate change, cost of production and demand etc.

Table- 5.3 Exports of floriculture form India-country wise

Country	2015-16		2016-17		2017-18	
	Qty	Value	Qty	Value	Qty	value
USA	5166.27	9676.11	3762.70	9902.23	3489.02	10497.73
NETHERLANDS	1883.90	5567.55	1809.32	5750.38	1855.00	6563.30
UK	2200.49	5603.43	2457.84	6838.96	2116.98	5320.13
GERMANY	2338.56	5692.88	2439.66	6241.66	1347.90	3667.89
UAE	1550.28	2784.06	1438.84	3449.30	12211.45	2929.65
CANADA	943.92	1736.13	748.52	1792.93	1133.35	2127.90
ITALY	444.91	1135.73	555.10	1609.93	522.49	1661.09
SINGAPOOR	1176.73	1428.87	1347.01	1654.38	1956.81	1545.90
JAIPUR	421.97	1596.52	365.05	1479.33	284.04	1360.83
MALAS YA	419.89	888.40	520.82	1202.27	793.46	1325.61
AUSTRILA	397.44	1393.24	250.07	1306.72	198.74	1312.95
SPAIN	175.03	395.41	186.31	660.82	250.41	1032.95
OTHERS	5572.27	10439.97	6139.11	12781.82	5543.82	11385.67
TOTAL	22691.66	48341.30	22020.35	54670.73	20703.47	50731.22

Source: APEDA website accessed on 12-09-18, Horticulture Statistics at a Glance, 2018.

The above **table-3** shows that India's export of the floricultural products from 2015-16, 2016-17 and 2017-18 India's total export of floricultural products during the year 15-16 was 5166.27 MT with an export value of 9679.11 lakhs. It is also observed that from 2015-16 to 2017-18 production quantity and value slowly increases upto 2017-18. In the time period of 3 years (2015-16 to 2017-18) though the quantity of total exports products varies slightly, export value has significantly increasing trend of global market. Thus India has an export opportunity to increase the export potential by increasing the productivity of commercial flowers.

The major countries where India exports floriculture products its quantity and value. It is observed that the export to the different countries is quite uneven. In the year 2015-16 the floricultural products have been exported to more than 100 countries, of which more than 85% are exported to the 12 countries shown in table. It is clearly seen that the biggest export market is the UK importing 2338.58 MT quantity by 5692.83 lakhs. The Germany imports 24 percent of the total exported quantity followed by UK, USA, Netherlands, Singapore and Canada. These 12 countries together import morethan 70 percent of the total exported

quantity. The Country, Netherlands, which is known as the leading exporter in the world trade of flowers also imports a large amount of flower cultural products from India.

Table -5.4 State wise Productivity of Loose Flowers

SNo	State/UTs	2015-16	2016-17	2017-18
1	Andhra Pradesh	8.07	14.16	16.67
2	Arunachal Pradesh	0.47	0.47	1.50
3	Assam	6.67	6.71	6.71
4	Bihar	12.01	12.01	10.17
5	Chhattisgarh	3.78	4.06	3.60
6	Gujarat	9.45	9.49	7.45
7	Haryana	10.48	10.20	10.34
8	Himachal Pradesh	32.55	25.33	19.17
9	Jammu& Kashmir	0.60	0.60	0.60
10	Jharkhand	4.85	12.70	5.62
11	Karnataka	7.28	4.56	7.37
12	Kerala	0.00	0.00	0.00
13	Madhya Pradesh	1.73	8.31	12.41
14	Maharashtra	5.97	0.31	5.30
15	Manipur	0.39	3.78	3.01
16	Meghalaya	0.00	6.25	0.00
17	Mizoram	4.32	2.30	0.00
18	Nagaland	12.72	0.31	0.00
19	Odisha	3.78	3.78	3.77
20	Punjab	6.23	6.25	5.15
21	Rajasthan	1.76	1.49	2.02
22	Sikkim	68.18	68.18	68.18
23	Tamilnadu	13.81	12.87	14.10
24	Telangana	3.77	3.41	4.83
25	Uttar Pradesh	1.99	2.19	2.19
26	Uttarakhand	1.14	1.48	1.66
27	West Bengal	2.72	2.74	2.80
	Others	4.03	0.19	0.16
	Total	5.97	5.55	6.06

Source: APEDA website accessed on 12-09-18, Horticulture Statistics at a Glance, 2018.

The above **table-5.4** shows that the State-wise productivity of Loose Flowers in India. The productivity determined by number of factors. Among all the states Sikkim stood first in the year 2015-16 and declined in the consequent year and again increased in the year 2017-18. The second place goes to Himachal Pradesh with 32.55 and decline in the consequent years. Nagaland's Productivity will be very high in the year 2016-17 only. In other states the

productivity of loose flowers are varied among three years. The reasons for variation in productivity of loose flowers among states are climate change, demand, and cost of production. The total productivity of Nation also recorded very low among three years.

Table- 5.5 Import of Flowers in India Country-wise (Qty in MT, Value in Rs.Lakhs)

Country	2015-16		2016-17		2017-18	
	Qty	Value	Qty	Value	Qty	Value
Nether Lands	1373.83	3408.34	1947.41	4386.40	1988.73	4327.04
Thai Lands	1549.72	4488.82	1611.16	4146.13	2016.29	3732.17
China	589.06	1105.11	508.71	1113.16	1014.22	1605.50
Italy	258.75	298.54	257.80	1236.87	232.02	1123.81
Iran	0.00	0.00	2.09	13.47	130.00	411.87
Uttarakhand	22.71	235.71	33.57	331.67	22.39	354.59
Newzaland	51.37	116.42	88.51	226.64	111.01	285.45
Issrail	25.99	205.46	18.88	170.47	24.48	235.54
Kenya	22.96	71.38	45.09	229.34	51.53	217.03
USA	21.40	181.27	12.20	121.23	16.36	178.64
Others	853.02	1328.99	1034.93	1405.63	636.14	1174.46
total	4768.81	11440.04	5560.35	13381.01	6243.17	13646.10

Source: APEDA website accessed on 12-09-18, Horticulture Statistics at a Glance, 2018.

The above **Table -5.5** shows the major importing countries in the world in cut flowers. It is clearly seen that Thailand possesses leading position, Netherlands, China, and Italy possessing 2nd and 3rd position respectively during the period 2015- to 2017-18. Other countries are the major destinations for cut flowers and other types of flowers are covered nearly 40 percent.

6. Government Programmes and policies: The ministry of agriculture is the key responsible to strengthen the department of agriculture and cooperation to develop the floricultural industry in India. It is most responsible to frame and implementation of policies and programs and schemes aimed at achieve high agricultural growth through utilisation of existing equipment and facilities in an optimum manner. Products are of loose flowers and cut flowers for exports is also another key area for support the industry. To promote agree-exports including flowers and for promotes on of floriculture in the nation of APEDA is working as a nodal organisation and introducing and implementing new schemes and programs in the country to promote and improve the status of floriculture is destroy there is necessary to develop its related areas like infrastructure, packing, market development, subsidiary on domestic and air fright for increase exports and plantation and up gradation of existing position.

7. Challenges for Exports:

Floricultural has emerged as an important non-farm activity in the nation, it provide more employment and income to the economy production wise, the country have an abundant base ,but not favourable climate to export to others countries the low performance or exports is

articulated to many challenges and obstructions in the process the floricultural industry in the economy is facing a number of challenges mainly related to exports and imports ,infrastructure wise, and marketing hurdles like high import tariffs inadequate availability of transport equipment very high freight prices and low storage and transport facilities. The industry facing challenges in terms of production also mostly facing us the problems of the areas of quality of seeds and planting materials, good irrigation systems and educated, knowledge and skilled manpower are lacking factors.

8. Future Prospects of Flowery Culture in India: In India, Flowriculture industry is considered as a high growth industry and export-oriented flower production has increased due to the Government policies and programmes. The expected prospects of floriculture in India are:

- The nursery industry is coming up a flourishing enterprise as a self-employment with high returns.
- The growing demand for floricultural plants, cut flowers, and loose flowers and cut flowers.
- The employment opportunities are increasing due to the demand for flowers for different occasions and due smart cities.
- Helping and protected or hi-tech cultivation of cut flowers has a great future in our country.
- Government of India support is required in production and exports.

9.CONCLUSION:

It is concluded that production and trade of Indian floricultural products have been consistently increasing over the last decade. Though India dominates in terms of area under cultivation compared with some leading countries which are quite prosperous in floriculture like the Netherlands, Colombia, Ecuador and Belgium, India's yield per hectare is low. As a result, India's contribution to the global floricultural exportvalue is not sufficient compared to other countries.. However, in order to become sustainable, new strategies should be followed, which can give fruitful results on long-term basis. Research activities on floriculture are being carried out at several research institutions under the Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR) and in the horticulture departments of state agriculture universities and under the All India Co-ordinated Floriculture Improvement Project. To meet the demand of flower seeds, several seed companies have developed production units in major flower growing states. India Government introduces various training related programmes for farmers and entrepreneurs. The Government offers a range of concession on seeds, planting materials, various types of equipment and airfreight for export. It is anticipated that improved policies would enhance floriculture in world trade.

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