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## FLORICULTURE AS AN EMERGING TOOL FOR WOMEN EMPOWERMENT: A CASE STUDY OF EAST GODAVARI DISTRICT, ANDHRA PRADESH

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### Abstract

Flowers have played an important role in life right from birth to death. Congratulations, celebrations and condolences have been expressed with flowers. Floriculture includes all practices associated with production of flowers and ornamental plants, as well as management of gardens and landscapes. Floriculture being an important agribusiness sector contributes widely to the Indian through opportunities in terms of employment, income generation earning foreign exchange and empowerment, thus raising the socio – economic status in both rural and urban areas. East Godavari district in the state of Andhra Pradesh, has a long tradition of floriculture. In recent years, the district has emerged as a hub for flower cultivation, Increase in the domestic demand for fresh-cut flowers and support from the Andhra Pradesh State government is encouraging women to take up flower cultivation on a commercial basis; floriculture becomes the tool for women empowerment. The present paper examines the role of floriculture in upliftment of women in East Godavari District of Andhra Pradesh. The attempt was made to highlight the inter-linkages of Women Empowerment, changing climatic conditions and economics of floriculture along with major policy level initiatives for the development of this segment of horticulture. The research studies indicate that women in India suffer due to unemployment. Income is vital for women empowerment and very few avenues of income are available for women in the State of Andhra Pradesh. In a nutshell, floriculture development works as a means of sustainable livelihood and income generation for women in East Godavari District of Andhra Pradesh.

**Key Words:** Flowers, Women Empowerment, Economics And Livelihood.

“If you economically empower a woman, she represents enormous opportunity that can actually be transformative not only for her family and for her community, but at the aggregate level for the economy.” Sheryl WuDunn

### Introduction

Women are the backbone of the Indian agricultural workforce who are neglected most of the time. Various programmes have been introduced through Indian Council of Agricultural Research (ICAR), National centre for women in Agriculture, and KrishiVigyan Kendra (KVKs) to promote women in the field of agriculture, animal husbandry, and homestead technologies. An important factor of empowerment in the third World Countries constitute rural women, who play a crucial role in sphere of developmental activities. Employment of women in the floriculture industry has brought about some improvement in their income and their decision making within their family outside in the Andhra Pradesh. Since women form almost half of the global population, sustainable development is inevitable without empowering women. Women can play a major role sustainable development through dialogue on economic, social, cultural, and environmental issues.

### Floriculture:

Flowers symbolize and depict human emotions like love, joy, peace, cheerfulness and hope in a most beautiful way. Flowers have always been an internal religious ceremonies and rituals and have been associated with progress and prosperity. In the last decade floriculture has evolved to the present form of lucrative flora Industry with the growing



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technology inputs, knowledge and skill up-gradation along with the global trade re-organized scenario and growing demand in national and international markets.

Flowers have played an important role in the life right from birth to death. Congratulation, celebrations and condolences have been expressed with flowers. Floriculture includes all practices associated with production of flowers and ornamental plants, as well as management of gardens and landscapes. Floricultural products are available in the market both as fresh and processed form. Fresh products comprises of fresh flowers (cut flowers, foliage plants and loose flowers) and potted ornamental plants and processed products include the dried plant parts which now is a large employment sector. Floriculture being an important agribusiness sector contributes widely to the Indian through opportunities in terms of employment, income generation earning foreign exchange and empowerment, thus raising the socio – economic status in both rural and urban areas. Till a few years back floriculture remained a part of agriculture activity of the growers who sold their produce for early and continuous flow of cash. However, presently with collaborative effort of the government, scientists and entrepreneurs, technological development and dissemination and proper exploitation of the countries varied agro climatic situation, floriculture has transformed into a high value commercial enterprise. Floriculture trade and technology has certain bottleneck areas posed due to the modern world which can be effectively and efficiently met through combined approaches such as crop improvement and production, transfer of technology, improved post-harvest management and finally marketing strategies The floral industry has an immense potential for employment generation and earning a foreign exchange. The present day floral industry is a dynamic, fast growing industry, which has achieved significant growth rate during the past few decades and has extended worldwide with the major paradigm shift of production centers from developed to developing nations. India is also paving its way to emerge as an important production base for floriculture products.

Women in urban areas in India suffer due to unemployment. Income is vital for Women empowerment. Many avenues of income are available for poor women in urban areas. Working as labor, servant or house maid is popular among poor urban women as it's easy to find a job & located in the neighborhood. But, instances of abuse, low wages & insecurity is rampant. This research studies floriculture as a means of sustainable livelihood income generation for poor women in urban areas in India.

### Review of Literature:

Here is a brief review of literature on floriculture as a tool for women empowerment in India, particularly in the context of East Godavari district:

**Mayuri (2012)** the academic literature on “Economic analysis of Commercial Floriculture nursery Management in East Godavari District of Andhra Pradesh”. Has revealed the emergence of several contrasting themes, such as financial feasibility, factors effecting on gross returns, cost and returns & constraints in floriculture nurseries. The researcher applied different types of techniques to find pay pack period and breakeven point for the floriculture business and also addressed the issues faced by the floriculturist.

**Gjendrudu (2014)** Researchers attempted to evaluate the impact of “Economics of Floriculture in Chitoor District of Andhra Pradesh”. Cost – return evaluation is absolutely necessary to understand the economic feasibility of investment in cultivation of flower crops. Profitability of different crops grown and their competing crops will help in farmers in taking rational decisions with regard to the allocation of scarce farm resources more optimally in order to maximize profit.

**The Hindu (2018)** reported that, floriculture is new trend that is catching up in Anantapur district, one of the backward districts in the State and which also experiences high temperatures and low rainfall. The farmers are apparently betting big on floriculture in view of growing demand for cut flowers in the country and abroad. The farmers, who used to cultivate capsicum, British cucumber, onion shallots etc, are diversifying to floriculture with a view to improve their earnings. The



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farmers in the district used to cultivate capsicum and other exotic vegetables in 37 acres. The farmers used to earn Rs. 8 lakh to 10 lakh per acre when capsicum was being cultivated. But, of late, they found that prices of capsicum would fall if there was a bumper crop in neighbouring Karnataka.

"Empowerment of women through floriculture: A study of Karnataka state" by **B. Nalini and K. R. Saravanan**. This study examines the role of floriculture in empowering women in Karnataka state and highlights the challenges faced by women entrepreneurs in the sector.

"Empowering women through floriculture: A study of Uttarakhand state" by **P. K. Mishra and K. C. Choudhary**. This study examines the role of floriculture in empowering women in Uttarakhand state and highlights the need for improved access to credit, marketing, and technology for women floriculturists.

"Role of floriculture in women's empowerment: A study of Andhra Pradesh" by **T. Vijaya Kumar and K. Satya Prasad**. This study explores the role of floriculture in women's empowerment in Andhra Pradesh and highlights the need for improved market linkages, technical support, and credit facilities for women floriculturists.

"Sustainable Floriculture in India" by the **International Trade Centre**. This report provides an overview of the floriculture sector in India and highlights the potential for sustainable floriculture practices to support women's entrepreneurship and rural development.

Overall, the literature suggests that floriculture has the potential to be an effective tool for women's empowerment in India. However, women floriculturists face various challenges such as limited access to credit, marketing, and technology. Government policies and programs can play a crucial role in supporting women entrepreneurs in the sector.

### Research Methodology:

The study is based on secondary data collected from sources like books, magazines, journals periodicals, research articles, reports of horticulture department of Andhra Pradesh and website. Hence the study is analytical in character by utilising these secondary data.

### Objective of the Study:

1. The objective of this case study is to explore how floriculture is empowering women in East Godavari district.

### Floriculture in India

Floriculture is an age old farming activity in India having immense potential for generating gainful self-employment among small and marginal farmers. In the recent years it has emerged as a profitable agri-business in India and worldwide as improved standards of living and growing consciousness among the citizens across the globe to live in environment friendly atmosphere has led to an increase in the demand of floriculture products in the developed as well as in the developing countries worldwide. The production and trade of floriculture has increased consistently over the last 10 years. In India, Floriculture industry comprises flower trade, production of nursery plants and potted plants, seed and bulb production, micro propagation and extraction of essential oils. The country has exported 15,695.31 MT of floriculture products to the world for the worth of Rs. 575.98 Crores /77.84 USD Millions in 2020-21.

The Government of India identified floriculture as a sunrise industry and accorded it 100 percent export oriented status. Floriculture products mainly consist of cut flowers, pot plants, cut foliage, seeds bulbs, tubers, rooted cuttings and dried flowers or leaves. The important floricultural crops in the international cut flower trade are rose, carnation,



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chrysanthemum, gerbera, gladiolus, orchids, anthurium, tulip and lilies. Floriculture crops like gerberas, carnation, etc. are grown in green houses. The open field crops are chrysanthemum, roses, gaillardia, lily marygold, aster, tuberosa etc. According to Horticulture Crops for 2018-19 statistics, the total area under flower crops was 303 thousand hectares. Total area under floriculture in India is second largest in the world and only next to China. Production of flowers was estimated to be 2910 thousand MT of which loose flowers accounted to 2263 thousand MT and cut flowers to 647 thousand MT. Fresh and Dried cut flowers dominate floriculture exports from India.

Among states, in terms of production, Karnataka stands first with a total of 253.24 thousand tonnes. In terms of area, Kerala is the leader in floriculture with about 53.26 thousand hectares under floriculture cultivation. Other major flower growing states are Tamil Nadu and Andhra Pradesh in the South, West Bengal in the East, Maharashtra in the West and Rajasthan, Delhi and Haryana in the North.

The expert committee set up by Govt. of India for promotion of export oriented floriculture units has identified Bangalore, Pune, New Delhi and Hyderabad as the major areas suitable for such activity especially for cut flowers. Of the four zones identified as potential centers for flower production namely Bangalore, Hyderabad, Pune and New Delhi, the area around Bangalore and Pune have got the advantage of ideal climatic conditions where the temperature ranges between 15 to 30°C. In view of this, the units established in these locations do not require either cooling or heating system. As a result maximum number of units has been established in these locations. There are more than 300 export oriented units in India. APEDA (Agricultural and Processed Food Products Export Development Authority) is the registering authority for such units.

### Indian Scenario of Floriculture

India has a long tradition of flowers. The details relating to area under cultivation as well as the production of loose and cut flowers from 2010 -11 to 2019-20 is presented in Table 3.4.

**Table 1. Area and Production of Flowers in India**

S.No.	Year	Area(000'ha)	Production	
			Loose Flowers(000MT)	Cut Flowers (000 MT)
1.	2010 - 11	191	1031	690(in '000 tonnes)
2.	2011 - 12	254	1652	751(in '000 tonnes)
3.	2012 - 13	233	1729	767(in '000 tonnes)
4.	2013 - 14	255	1754	542(in '000 tonnes)
5.	2014 - 15	246	1639	105(in '000 tonnes)
6.	2015 - 16	278	1656	528(in '000 tonnes)
7.	2016 - 17	306	1699	693(in '000 tonnes)
8.	2017 - 18	324	1962	823(in '000 tonnes)
9.	2018 - 19	303	2263	647(in '000 tonnes)
10.	2019 - 20	305	2301	762(in '000 tonnes)

Source: Horticulture Statistics data base for various years

From the Table 1 it is seen that the area under cultivation was 191 hectares in 2010-11 which increased to 324 hectares in 2017-18. The production of loose flowers has also increased from 1031 thousand tonne in 2010-11 to 2301 thousand tone in 2019 -20. This shows that there has been a tremendous increase in the production. The cut flowers produced was 690 tonnes in 2010-11 which increased to 762 thousand tonnes in 2019 - 20.



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## Government Programmes and Policies

Department of Agriculture and Cooperation under the Ministry of Agriculture is the nodal organization responsible for development of the floriculture sector. It is responsible for formulation and implementation of national policies and programmes aimed at achieving rapid agricultural growth through optimum utilization of land, water, soil and plant resources of the country. Production of cut flowers for exports is also a thrust area for support. The Agricultural and Processed Food Products Export Development Authority (APEDA), the nodal organization for promotion of agri exports including flowers, has introduced several schemes for promoting floriculture exports from the country. These relate to development of infrastructure, packaging, market development, subsidy on airfreight for export of cut flowers and tissue-cultured plants, database up-gradation etc. The 100% Export Oriented Units are also given benefits like duty free imports of capital goods. Import duties have also been reduced on cut flowers, flower seeds, tissue-cultured plants, etc. Setting up of walk in type cold storage has been allowed at the International airports for storage of export produce.

Initiatives have also been launched for the benefit of exporters by providing cold storage and cargo handling facility for perishable products at various international airports. Direct subsidy up to 50 percent is also available in cold storage units. Besides, subsidy is also provided by APEDA on improved packaging materials to promote their use. To attract entrepreneurship in floriculture sector, NABARD is providing financial assistance to hi-tech units at reasonable interest rates.

Several schemes have been initiated by the Government for promotion and development of the floriculture sector including “Integrated Development of Commercial Floriculture” which aims at improvement in production and productivity of traditional as well as cut flowers through availability of quality planting material, production of off season and quality flowers through protected cultivation, improvement in post harvest handling of flowers and training persons for a scientific floriculture. Many state governments have set up separate departments for promotion of floriculture in their respective states.

Research work on floriculture is being carried out at several research institutions under the Indian Council of Agricultural Research and Council of Scientific and Industrial Research, in the horticulture/floriculture departments of State Agricultural Universities and under the All India Coordinated Floriculture Improvement Project with a network of about twenty (20) centres. The key focus areas are crop improvement, standardization of agro-techniques including improved propagation methods, plant protection and post harvest management. In recent years, however, technologies for protected cultivation and tissue culture for mass propagation have also received attention. A large number of promising varieties of cut flowers have been developed. All these efforts indicate the government’s commitment for improving the sector and creating a positive environment for entrepreneurship development in the field.

### Floriculture in Andhra Pradesh

Floriculture sector has been identified as a key focus segment of horticulture. Flower cultivation is profitable for farmers because of the growing demand for flowers in domestic and export market. The activities taken up are area expansion of flowers in open cultivation and value cut flowers under protected cultivation (shadenets, green houses). The major flower crops grown are Rose, Jasmine, Chrysanthemum, Marigold, Crossandra and Tuberoses. 80206 thousand tonnes of flowers were produced during the year 2019-20. The APEDA has identified roses and Chrysanthemums as having good export potential.

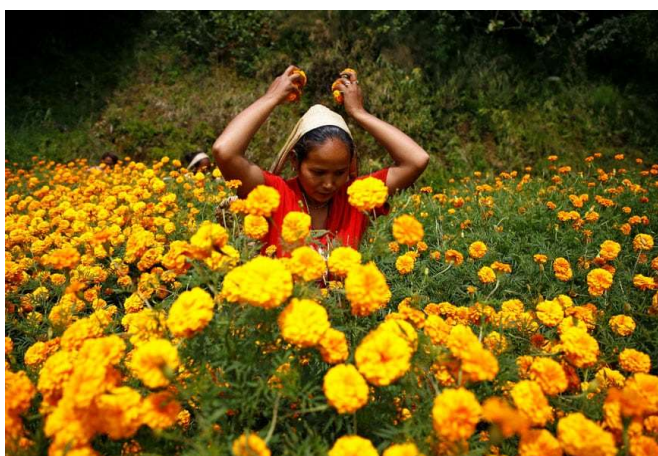


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The Flowers are associated with the people of Andhra Pradesh since ancient times. However, commercialization of floriculture has emerged as a new avenue for the people of Andhra Pradesh for self employment through flower production and marketing. Efforts have been made by the State and Central Government to promote flower cultivation by adopting modern technologies so as to produce high quality flowers& flower plants meeting the international standard. In order to attract large number of small and medium entrepreneurs in floriculture business, the government of Andhra Pradesh has identified different production areas for different category of flowers and has taken initiation to encourage the entrepreneurs to nurture the floriculture business in Andhra Pradesh. The present study mainly concentrates.

The major flowers which are harvested in Andhra Pradesh include gladiolus, lily, jasmine, aster, jasmine, gerbera, rose, African marigold and carnation. The flowers are mostly grown in Anantapur, Guntur, Prakasam, Chittoor and East Godavari districts. The major markets for flowers are Bengaluru, Kolkata, Hyderabad, Chennai and **Kadiyam** which is the area of the present study.

**Table 2. Area under Floriculture Crops varieties in Andhra Pradesh**

S. No	Years	Flower Varieties (Area in hectares)									Total area
		Rose	Jasmine	Mari gold	Chrysa nthemu m	Tube rose	Cross andra	Kag ada	Samp angi	Other s	
1.	2010-11	783	2412	2784	2145	519	1415	329	385	587	11359
2.	2011-12	810	2540	2943	2914	749	1460	261	293	470	12440
3.	2012-13	875	2664	3290	2752	488	1250	144	507	407	12377
4.	2013-14	705	2307	2357	1980	692	1297	175	556	14	10083
5.	2014-15	602	2270	2709	1943	717	1277	198	327	94	10137
6.	2015-16	494	2175	2194	2151	736	1111	182	243	72	9358
7.	2016-17	406	2363	2559	2415	816	1064	162	210	48	10043
8.	2017-18	314	2718	3580	2674	662	1158	248	200	224	11778
9.	2018-19	348	2877	2969	2961	745	1177	180	150	215	11622
10.	2019 - 20	316	2205	2626	3137	618	886	151	170	185	10294

Source: Directorate of Economics and Statistics. Government of Andhra Pradesh,Hyderabad.<sup>53</sup>



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It is noticed from the Table e that the area under floriculture crops like Rose, Jasmine, Marigold, Chrysanthemum, Tube rose, Crossandra, Kagada, Sampangi and Others has showed an increasing and decreasing trend in area during the year 2010 - 11 to 2019 -20 in Andhra Pradesh. The lowest level of area under all floriculture crops was recorded during the year 2015 -16 (9,358 hectares). 12,411 hectares of land was cultivated under floriculture during the year 2011 -12. Of all the crops, Rose showed a decreasing trend in area under floriculture crops. Jasmine showed an increasing and decreasing trend. Marigold and Chrysanthemum crops have showed an increasing trend in the cultivated area. SampangiKagada crops were raised in the years 2012 -13 and 2017 -18 respectively. Sampangi crop has raised in area of 556 hectares in 2013 -14 and 556 hectares in 2013-14. Lilly crop has registered irregular trends in the cultivated area. It is found decreasing trends in the area of Kagada. The area under Other flowers was decreasing trend from 2010-11 to 2019-20. This clearly shows the change of cropping pattern towards horticulture and floriculture. Table 2 shows the production of floriculture crops in Andhra Pradesh.

**Floriculture in East Godavari District:**

East Godavari district in the state of Andhra Pradesh, India, has a long tradition of floriculture. Various varieties of flowers are cultivated here. Nurseries here are spread in 5,000 acres in Kadium, Rajahmundry and Rural Mandals in Rajamahendravaram City. Floriculture is expanding to Mandapeta, Alamuru, Atreyapuram, and Ravulapalem Mandals. Floriculture Institute and Research Centre is under construction at Vemagiri in Rajamahendravaram city. The government is trying to export these flowers from Rajahmundry Airport through cargo planes. In recent years, the district has emerged as a hub for flower cultivation, and this has provided opportunities for women's empowerment. Here is a case study of floriculture as an emerging tool for women's empowerment in East Godavari district:

**Floriculture – Women Empowerment:**

**Economic Empowerment:** Floriculture provides a viable source of income for women. Women can participate in all aspects of the floriculture value chain, from planting and growing to harvesting and packaging. Women can earn a decent income by selling flowers to local markets or exporting them to other countries. This economic empowerment can help women gain financial independence and improve their social and economic status.

**Skill Development:** Floriculture provides women with opportunities to develop new skills such as farming, horticulture, and marketing. This can enhance their employability and also enable them to start their own businesses. With training and support, women can become successful floriculturists, which can lead to increased self-esteem and confidence.

**Gender Equality:** Floriculture can help break gender stereotypes by providing women with equal opportunities to participate in economic activities. It can also help to reduce gender-based violence and discrimination by creating a safe and inclusive work environment.

**Environmental Sustainability:** Floriculture can be a sustainable agricultural practice that can contribute to the conservation of natural resources. Women can play a crucial role in promoting sustainable floriculture practices such as using organic fertilizers and pesticides, reducing water usage, and promoting biodiversity.

Overall, floriculture has the potential to be a powerful tool for women's empowerment, providing them with economic opportunities, skills development, gender equality, and environmental sustainability. Governments, NGOs, and other stakeholders can work together to support women in floriculture and promote gender equality in the agricultural sector.

**Results:**

The results of the study indicate that floriculture is providing significant opportunities for women's empowerment in East Godavari district. Women are involved in all aspects of the floriculture value chain, from planting and growing to



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harvesting and packaging. Many women have started their own small businesses, and some have even formed cooperatives to collectively sell their flowers.

Floriculture has also provided opportunities for skill development and capacity building. Many women have received training in floriculture techniques, marketing, and entrepreneurship. This has helped them to become more self-sufficient and to earn a decent income.

Floriculture has also contributed to environmental sustainability in the district. Women floriculturists have adopted sustainable agricultural practices such as organic farming, water conservation, and waste management. This has not only helped to conserve natural resources but has also contributed to the quality of the flowers produced.

### Conclusion:

In conclusion, floriculture has emerged as an important tool for women's empowerment in East Godavari district. A Floriculture sector which was just a hobby is now being used to earn a living and is directly or indirectly contributing towards economic development. Thus, further development of these sector brighter prospects to empower women in Andhra Pradesh because of increase in use of flowers on every occasion. It has provided opportunities for economic empowerment, skill development, gender equality, and environmental sustainability. A favourable and pleasant river of Godavari and availability of fertile soil has encouraged women to take up flower business. Increased participation of women in floriculture activity has boosted up employment opportunities not only for women and unemployed female youth, but also for local and non-local labour such as further development of their nurseries, increase in production, fulfilling their personal needs, fulfil needs of their family and children's education, and so forth, thus empowering them to take own decision spending their income.

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