

Abstract

In West Bengal, floriculture is a blooming industry because the state is blessed with varied and dynamic agro-climatic condition; good quality soil and sufficient water make the state suitable for floriculture. The main flower producing districts in West Bengal are Nadia, Purba Medinipur, Paschim Medinipur, North-24-Parganas, South-24-Parganas and Howrah in South Bengal and Darjeeling, Kalimpong, Jalpaiguri and Cooch Behar in North Bengal. Both types of flowers (Cut and Loose flowers) are cultivated in West Bengal. Loose flowers are cultivated in open field like- Jasmine, Marigold, Hibiscus, Beli, Balsam, Sunflower etc., where as cut flowers are cultivated in open as well as under protected condition like- Tuberose, Rose, Gerbera, Gladiolus, Chrysanthemum, Orchids, etc.

Information is very important for each and every community, rather it can be said that Information is a very powerful tool to address the needs of any community and if it is used in right direction then it can create a huge impact on a country's economy. Information is a basic needs of human life, therefore, it can be said that without information, survival and development of any community is not possible. For this reason, information is very much essential for the development of floriculture community also because the overall development of the entire floriculture community is crucially depend on floriculture productivity and proper marketing.

So, to increase the floriculture productivity a well developed floriculture information system has been needed which will disseminate floriculture information in timely manner to the floriculture community for their overall development. Therefore, a model floriculture information system can be defined as a system in which floriculture related information is

generated, consolidated, transformed, received and delivered to the target group i.e., floriculture community in their regional language according to their needs and requirements.

To evaluate and improve the performance of the existing floriculture information system there is need to identification and analyzation of the Strengths, Opportunities, Weaknesses and Challenges (SWOC) of the existing floriculture information system and then suggestions can make for the implication of better functioning floriculture information system to achieve the specific objectives of this research.

Objectives of the Study:

The main objectives of the study are as follows:

1. To study the present scenario of floriculture and information need of floriculture community in West Bengal.
2. To perform a SWOC (Strength, Weakness, Opportunities and Challenges) analysis of the existing components of floriculture based information flow.
3. To establish a strong coordination among all the existing components of floriculture based information flow for the betterment of floriculture community in West Bengal.
4. To provide a platform to the floriculture community by developing a model Floriculture Information System through SWOC Analysis for West Bengal that can extend required information support to improve their livelihood.

In order to prepare SWOC (Strength, Weakness, Opportunity and Challenge) Analysis of Floriculture Information System in West Bengal for its development the present study primarily confines to the main components of Floriculture Information System in West Bengal viz. a) Education And Research b) Floricultural Extension Services (Means solving the need of the

farmers with resources made available through a variety of outreach programs) and c) Farmers (Flower Growers & Flower Sellers).

Therefore to investigate the above mentioned components for the SWOC (Strength, Weakness, Opportunity and Challenge) Analysis of Floriculture Information System in West Bengal the following studies have been prepared by stratified sampling technique.

- a) To know the existing condition of Education and Research in the field of Floriculture in West Bengal, two State Agricultural Universities viz. 1) Bidhan Chandra Krishi Viswavidyalaya (BCKV) and 2) Uttar Banga Krishi Viswavidyalaya (UBKV) have been studied and data has been collected by interview method.
- b) To focus the existing condition of Research and Extension Services in the field of Floriculture nine Krishi Vigyan Kendras (KVKs) of main flower producing district of West Bengal have been studied and data has been collected by the help of structured questionnaire viz. 1) Nadia Krishi Vigyan Kendra 2) Howrah Krishi Vigyan Kendra 3) Purba Medinipur Krishi Vigyan Kendra 4) Paschim Medinipur Krishi Vigyan Kendra 5) Nimpith Krishi Vigyan Kendra (South-24-Parganas) 6) Ashoknagar Krishi Vigyan Kendra (North-24-Parganas) 7) Coochbehar Krishi Vigyan Kendra 8) Jalpaiguri Krishi Vigyan Kendra and 9) Darjeeling Krishi Vigyan Kendra .

Apart from these to investigate the floriculture information dissemination process from the district level to the ground level, the study has been conducted by interview method in District Horticulture Department, Block Development Office and Panchayat Samiti of Flower producing districts of West Bengal viz. 1) District Horticulture Department of Cooch Behar 2) Block Development Office, Mathurapur-I

Block, South-24-Parganas and 3) Panchayat Samiti, Village-Bhagabatipur, Mathurapur-I Block, South-24-Parganas.

3) To highlight the existing ground reality of Farmers (flower growers and flower sellers), one of the main components of Floriculture Information System, data have been collected from 331 flower growers of nine main flower producing districts of West Bengal by the help of structured questionnaire viz. 1) Nadia 2) Purba Medinipur 3) Paschim Medinipur 4) North-24-Parganas 5) South-24-Parganas 6) Howrah 7) Coochbehar 8) Jalpaiguri and 9) Darjeeling.

Apart from these, five flower markets of West Bengal have been also surveyed to focus the existing infrastructural and marketing issues of floriculture marketing system in West Bengal. To know the ground reality of flower sellers, data has been collected by the help of structured questionnaire from 218 flower sellers of the five flower markets of West Bengal viz. 1) Mallickghat Flower Market, Kolkata 2) Kolaghat Flower Market, Purba Medinipur 3) Dhantala Flower Market, Nadia 4) Nokari Flower Market, Nadia 5) Thakurnagar Flower Market, North-24-Parganas.

Based on the collected data, the SWOC (Strength, Weakness, Opportunity and Challenge) analysis of existing Floriculture Information System in West Bengal different the following factors has been identified such as-

A. Strengths of Floriculture Information System in West Bengal: a) Suitable Agro-Climatic Condition b) Availability of Land and Labour c) Demand of flowers in Domestic, National and International Market d) Large Network of Agricultural Extension System.

B. Weaknesses of Floriculture Information System in West Bengal: a) Lack of Funding in the field of research at University level b) Lack of Funding to strengthen infrastructure of KVK for research and extension c) Lack coordination of Research-Extension-Farmers Linkage d) Lack of Efficient Extension Workers e) Lack of Market Related Information f) Infrastructural Problem related to Flower Market g) Lack of government schemes in the field of floriculture.

C. Opportunities of Floriculture Information System in West Bengal: a) Demand of flowers in Domestic, National and International Market b) Job Opportunity c) Government Initiatives d) Demand of Value-added products from floriculture.

D. Challenges of Floriculture Information System in West Bengal: a) Weak Research-Extension-Farmers Linkage b) Lack of sufficient government facilities c) Exploiting role of Intermediaries d) Lack of standard flower quality e) Political Issues.

On the basis of analysis of these surveyed data by personal interview and visit of above mentioned departments, it has been observed that floriculture related information generated by the different research and development organizations of central as well as state government such as by the experts of ICAR Institutes, State Agricultural Universities, Krishi Vigyan Kendras, District Horticulture Departments of this state, is not reaching to the grass root level by the agricultural extension workers. A wide gap has been noticed in between research, extension work and farmers. The result of various research programs on floriculture practiced at different level, is not properly reaching to the floriculture community by the agricultural extension personnel. The policy makers should requested to think about to strengthen the agricultural extension function at below district level, such as sub-division level, block level and panchayat

level because the extension personnel have the responsibility to disseminate floriculture related information to the floriculture community in timely manner. Apart from this, many infrastructural problems are also associated with the floriculture sector, identified by this study.

By the SWOC (Strength, Weakness, Opportunity and Challenge) analysis the positive side like strengths and opportunities of the Floriculture Information System are highlighted and the negative sides like weaknesses and challenges are also bring in focus by this study. To convert weaknesses and challenges of Floriculture Information System into strength, a well developed model Floriculture Information System has been required.

The following proposals have been suggested for the development of Floriculture Information System in West Bengal.

- a) Strengthen the Research-Extension-Farmers Linkage b) Incorporation of floriculture in Fasal Bima Yojana c) Public Libraries as Floricultural Community Information Centres and apart from these, a model of floriculture information system has been proposed for the development of floriculture community.

❖ A proposed Model of Floriculture based Information System:

By this present study it has been identified that floriculture related information generally provided by two ways in state level, viz. 1. Krishi Vigyan Kendra 2. Directorate of Horticulture.

But during the survey it has been noticed that generated information by education and research is not reaching to the needy flower farmers in timely manner by the agricultural extension workers. There is a big gap has been identified in research-extension-farmers linkage. Therefore, the flower farmers are suffering due to unscientific low production and low profit.

To cope with this situation, the only way of proper dissemination of floriculture related information is the establishment of village-based rural Floriculture Information Centre. These centres would work at Panchayat level. Rural Floriculture Information Centre is basically an information centre that is provided for the survival and growth of the rural floriculture community. Rural information services basically tailored towards analyzing and providing for information needs of rural people.

Generally a Panchayat Samiti is consists of 10 to 12 villages. These Panchayat Samitis of flower producing blocks in West Bengal may set up the floriculture based Floriculture Information Centres to disseminate floriculture related information to the flower farmers.

- If under each Panchayat Samiti of flower producing blocks at least one Floriculture Information Centre is established, then the flower farmers will be benefitted from the centres. These Floriculture Information Centres will contain all documentary sources related to floriculture in regional languages such as periodicals, magazines, pamphlets, leaflets, different government facilities related documents.

Basic infrastructure shall be required such as- a computer with internet connection, a printer, a scanner, an android tab with GPRS and a projector. By the help of information communication technology these centres can arrange audio-visual programs, talk shows, discussion programs, weekly or monthly meeting with power point presentation by contacting agricultural experts of different government organizations in their regional language to solve the day to day problem of flower growers and sellers.

- These centres should function under the charge of – 1 Library and Information Science Professional and 1 Agricultural Science Professional having training in their respective fields (at least 6 months certificate course), appointed by the Panchayat Samiti. The professionals would pay by the Panchayat Samiti for their voluntary service with a consolidated monthly remuneration of Rs. 3000/- to each of them.
- The agricultural professional should visit farmer's fields to collect data as images and texts then put into the system. Then the system produces the advice and the library professional retrieves the advice and explain to concerned farmers in timely manner. Documents management (classification, cataloguing and accessioning) in those centres should be done by the library professional. The library professional should create a database on floriculture for the development of floriculture community.
- These centres also responsible to supply feedback to the panel of experts of District Horticulture Department and Krishi Vigyan Kendras who analyze and provide solutions to the problems of the farmers that are relayed to them by the agricultural professional.
- **Financial Proposal:** To implement this proposal, a sum of Rs 80,000/- (approximately) per year is required by the Panchayat Samiti.

Cost per Centre-Rs. 80,000/-(approximately)/year

Man power-2 professionals (1-Agricultural Science professional and 1- Library and Information Science professionals)

Rs. 3000/-/month/professional=Rs. 3000/-x 2 = Rs. 6000/- per month

Per year- Rs. 72,000/- + *Contingencies Rs. 8000/- =80,000/-

(*Contingencies = Telephone and stationeries)

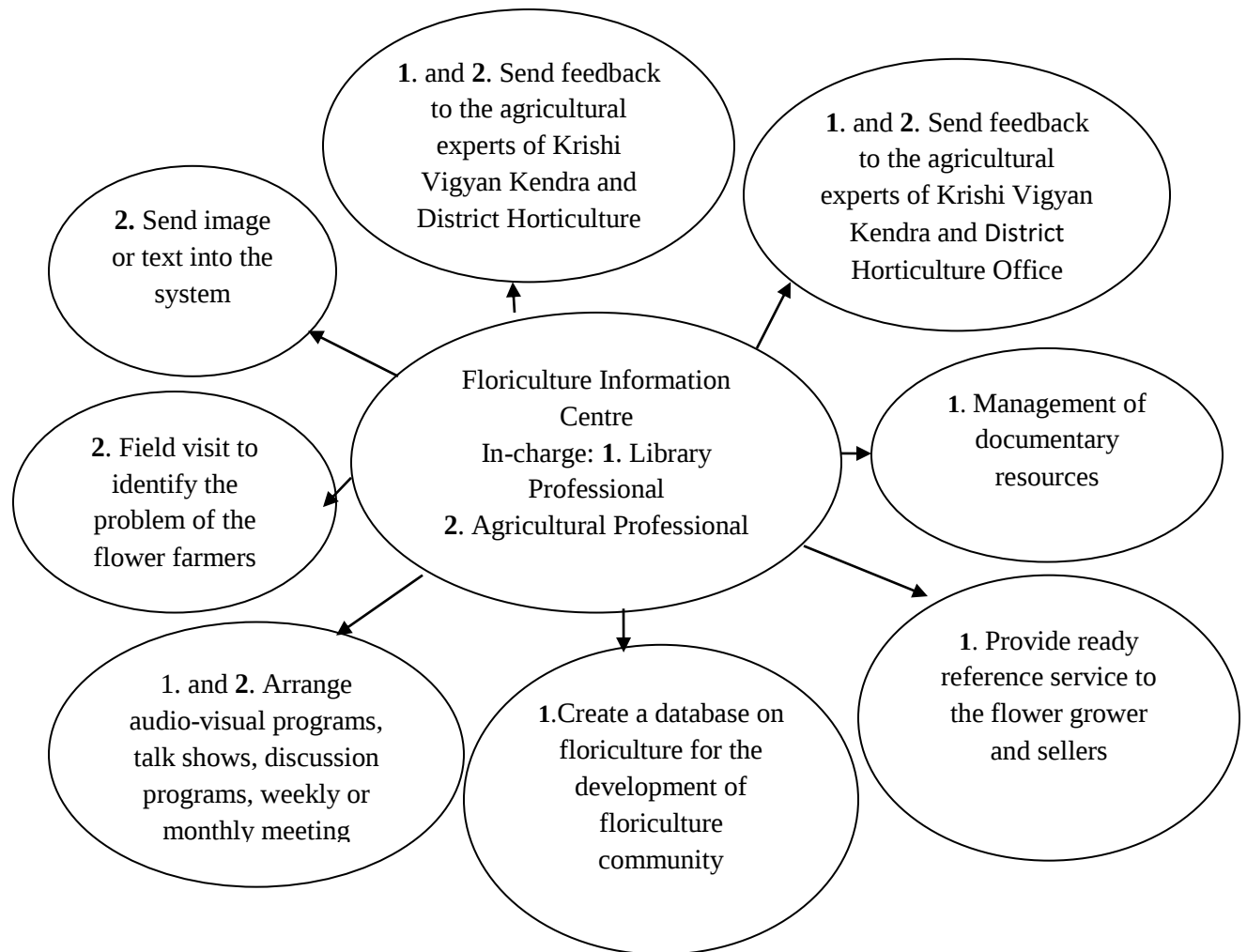


Fig. 8.2: Diagrammatic representation of work flow of proposed Floriculture Information Centre under each Panchayat Samiti

Key Words: Floriculture Community, Floriculture in West Bengal, Floriculture Information, Information System, Floriculture Information System.