Chapter VI: Role of Government in developing Floriculture

Government of India acknowledges the potential of Floriculture industry and has conferred it 100% export oriented status. Various incentives offered by Government of India have enabled the setting up of a number of floriculture units for producing and exporting flowers which have obtained technical know-how from Dutch and Israeli consultants. Tax benefits are offered to new export oriented floriculture companies in the form of income-tax holidays and exemption from certain import duties like reduction of duties for import of flower seeds and tissue-cultured plants. Financial support is provided for setting up of pre-cooling and cold storage units, as well as for using improved packaging material.[1]

Government of India promotes assists and facilitates the setting up of Agri Export Zones (AEZ) in association with the State Government with the objective of providing remunerative returns to farming community in a sustained manner and to increase their competitiveness. There are at present six operational AEZs for floricultural development in India. [2]

Table 6.1 : List of Agri Export zones for Floriculture Development

SL	STATE	DISTRICT/AREA
1	Tamil Nadu	Dharmapuri.
2	Uttaranchal	Districts of Dehradun, Pantnagar.
3	Maharashtra	Pune, Nasik, Kolhapur and Sangli.
4	Karnataka	Banglore(Urban), Banglore (Rural), Kolar, Tumkur, Kodagu and Belgaum.
5	Sikkim	East Sikkim.
6	Tamil Nadu	Nilgiri District.

Source : APEDA

Indian floriculture industry is also affected by the global economic slowdown. Further the competition in the international arena has been increasing with the entry of new African countries in global floriculture trade. Besides, a number of Asian neighbours are emerging as competitors in the export market such as China, Nepal, Sri Lanka and

Pakistan. With international trade in the sector showing not-so-favourable scenario, the domestic market for flowers is on the rise with flower consumption in cities and towns reportedly growing at 40% per annum.[3]

6.1: Schemes available at present

In order to improve livelihood opportunities and to bring prosperity to NER (North Eastern Region) including Sikkim and Himalayan states, Government of India has launched a Horticulture Mission For North East And Himalayan States (HMNEHS) for Integrated Development of Horticulture. The mission is based on the 'end-to-end approach' taking into account the entire gamut of horticulture development with all backward and forward linkages in a holistic manner.

As per the Operational Guidelines 2010 of HMNEH, the Mission will operate in North Eastern States (Assam, Arunachal Pradesh, Manipur, Mizoram, Meghalaya, Nagaland, Sikkim and Tripura) and Himalayan States (Jammu and Kashmir, Himachal Pradesh and Uttarakhand) to promote holistic growth of horticulture sector covering fruits, vegetables, flowers etc. HMNEH is a centrally sponsored scheme for which 100% assistance is provided by Government of India.

The Objectives of the Mission are:

1. Harness potential of Horticulture in the region by increasing production and productivity of Horticultural crops
2. Maximize; economic, ecological and social benefits; through desirable diversification
3. Develop additional infrastructure for production of planting material, storage and marketing of horticultural produce
4. Provide skilful employment in the region

To achieve the above objectives, the Mission strategy includes:

1. Adoption of end-to-end holistic approach covering production, protection, post-harvest management and marketing to ensure appropriate returns to growers/producers.
2. Enhance acreage, coverage and productivity.
3. Improvement of post-harvest management and marketing infrastructure.
4. Promotion of technologies developed through R&D for improving quality of horticulture produce.
5. Adopt a coordinated approach and promote partnership, convergence and synergy among R&D and marketing agencies in public as well as private sectors, at national, regional, state and district level.

The Mission Structure comprises of:

1. Mini Mission I (Research) which concentrates on technology generation as appropriate to each region/state keeping in view their specific agro-climatic and socio-economic conditions.
2. Mini Mission II (Production & Productivity Improvement) which focuses on increasing quantum and quality of horticulture produce through adoption of improved technologies including genetic upgradation of all horticulture crops.
3. Mini Mission III (Post Harvest Management & Marketing) which aims to create suitable infrastructure facilities for efficient post- harvest management, integrated cool chain system, primary processing/value addition and marketing of horticulture produce.
4. Mini Mission IV (Processing & Value addition) which was implemented by Ministry of Food Processing Industries and includes promotion and establishment of new processing units, modernization and up gradation of existing units, market promotion of processed horticulture products by brand building, quality assurance, entrepreneurial development etc.

The Institutional Structure of the Mission at the National Level comprises of the Central Steering Committee (CSC) that under chairmanship of Secretary (A&C) oversees all

activities and approves Action Plan of various states under Mini Mission II. CSC has discretion and authority to reallocate funds earmarked for various components within Mission outlay as per needs and requirements based on feed-back or evaluation. CSC is also empowered to approve special interventions for tackling emergent/unforeseen requirements but subsidy for such interventions will not be more than 50% of approved costs.

At the State Level, the State Level Steering Committee (SLSC) is responsible for approving the State Annual Action Plan (AAP) and ensures effective implementation and monitoring of Mission in the states.

At the District Level, the State Level Committee of implementing states will constitute District Level Committee (DLC) that will comprise of officials from Horticulture, Agriculture, Panchayati raj institution and other line departments. Coordination will be ensured by the committee at district level.

Technical Support Group (TSG) – The Mission has strong technical component and domain experts are central to management of the Mission. Technical support to the Mission at National and State levels are provided by SFAC which are suitably strengthened by experts and technical personnel to advise, formulate, appraise and monitor the implementation of the Mission's programmes.

Small Farmer's Agri-Business Consortium (SFAC), New Delhi has an important role to play. It interacts with State Governments/State agencies to obtain their views on the programmes of the Mission and may suggest modifications in policies or scheme parameters for considerations of DAC. In addition to its role of monitoring and sending quarterly report to Horticulture Mission Cell, DAC, SFAC also acts directly as an implementing agency for any component of the Mission programme on request of DAC. The funds for Mini Missions II, III and IV (except to designated agencies like NHB, NBB for capacity building in Agriculture/ Horticulture etc.) is to be routed through SFAC for further release to respective State Level SFAC of the States concerned. Funds of Mini Mission I is to be directly released to Nodal Officers of ICAR institutes.

National Committee on Plasticulture Applications in Horticulture (NCPAH) is one among a number of various national level agencies through which certain components of the

Mission are being implemented. It coordinates and monitors activities relating to precision farming and hi-tech floriculture.

Supporting Agencies:

National Bank for Agriculture and Rural Development (NABARD) is an apex bank of the country for supporting and promoting agriculture and rural development. The Government of India and Reserve Bank of India contribute to the share capital of NABARD. As a refinance institution, NABARD has been playing an important role to develop floriculture in India.

The Credit Functions of NABARD are:

1. Preparation of potential linked credit plan annually for all districts for identification of potential for exploitation through bank credit
2. Monitoring the flow of ground level rural credit
3. Issuing policy and operational guidelines to rural financing institution
4. Providing credit facilities to institution

Floriculture being a capital-intensive activity, finance poses as one of the most significant inputs in its development. Finance is essential for development of land, drip irrigation, machinery and equipment, green house, cold storage, planting material, post- harvest management and other activities. NABARD has played a very helpful role in this aspect. It provides facilities of refinancing in floriculture in different areas of the country. It has contributed immensely in promoting and supporting hi-tech floriculture projects by way of providing huge finance.

National Horticulture Board (NHB) has taken up two strategies –

1. Promotional activities to boost the process of employment generation, increase in income of small and marginal farmers and backward communities in the process of horticulture development.
2. Catalytic activities for commercialization of horticulture through production, post -harvest management and processing with enhanced productivity, processing and marketing related programmes.

NHB received a major thrust from the Government in the Eighth Plan with the following schemes:

- Soft loan schemes for exploring commercial horticulture, post- harvest management and marketing.
- Schemes to provide support services like market information and transfer of technology.
- Schemes to create awareness and updating the state of horticulture through innovative ideas and professional concepts.

The Ninth Plan expanded the schemes to cover every aspect of horticulture promotion in India. Henceforth, significance of the scheme would be result oriented and substituted with back ended capital intensive subsidy. The NHB has decentralised and simplified the procedures and linked subsidy with performance.

Components of the schemes are of two types:

A) Production Related Components

- High quality commercial horticulture crops
- Indigenous crops, herbs, aromatic plants, seed and nursery
- Biotechnology, tissue culture, bio- pesticides, organic foods
- Establishment of horticulture Health Clinic/ laboratory (for agri/horti unemployed graduates)
- Consultancy services, bee keeping

B) Post Harvest Management / Primary Processing Related components:

- Grading/ washing/ sorting/ drying/ packing centres.
- Pre cooling unit/ cool stores
- Refer van/ containers
- Special transport vehicle
- Retail outlets, auction platforms, market yard, rope ways
- Ripening/ curing chamber
- Radiation unit/ dehydration unit/ vapour heat treatment unit
- Primary processing of products fermentalisation, extraction, distillation, juice vending pulping, dressing, cutting, chopping, etc
- Hort. Ancillary Industry e.g. tools, equipment, plastics, packaging, etc.

- Crates, cartons, aseptic packaging and nets where 50%subsidy as assistance is available

N.H.B has provided Back ended capital investment subsidy not exceeding 20 per cent of the project cost with a maximum limit of Rs. 29 lakh per project (Rs, 30 lakh for North East tribal area).Eligible organizations to benefit from the above scheme include NGO‟s, Association of Growers, Individuals, Partnerships/Proprietary Firm, Companies, Corporations, Cooperatives, Agricultural Marketing Committees, Marketing Boards/Committees, Municipal Corporations, Agro Industries Corporation and other concerned Research and Development Organizations.

The Agricultural and Processed Food Products Export Development Authority (APEDA) was established by the Government of India under the Ministry of Commerce with the prime responsibility to promote export of processed horticultural products.

The main objectives of APEDA are:

- To maximize foreign exchange earnings through increased agro-export for providing higher incomes to the farmers through higher unit value realization.
- To create employment opportunities in rural areas by encouraging value added exports of farm products, and
- To implement schemes for providing financial assistance to improve post-harvest facilities to boost their export.

APEDA has played a significant role in the development of floriculture in India. Its initiation of certain strategic measures has highly enhanced the export performance of the floriculture industry. There are set cold storage and cargo handling centre for perishable cargo at Chhatrapati Shivaji International (C.S.I.) airport Mumbai that APEDA has contributed by way grant-in-aid. This facilitates growers to enjoy better prices due to the large potential and growing domestic market during the season when exports are not made.

APEDA has set-up a marketing centre at Alasmeer in Netherland to promote Indian produce. APEDA plans to provide assistance for the infrastructure while day-to-day management is to be looked after by the growers so that the centre is self-sufficient in meeting all operational costs.

APEDA had conducted the study on viability of floriculture industry and identified several constraints i.e. high marketing cost, absence of critical infrastructure for export facilitation, high cost of finance etc., Suggestion are being taken into consideration by the Government with several measures to tackle these constraints[4].

6.2: Promotion of Joint Venture

The idea of exploring technical tie-ups and joint ventures is necessitated out of the Indian Government's need for investment and technology infusion. Attracted by the huge growth potential of Floriculture, the private sector developed a growing interest in this field, resulting in joint ventures. Initially such ventures were mainly with Europe based companies whereby European firms enjoyed the benefit of transferring their production from Europe to India while local partners could avail themselves of technical assistance to standardize their production technology. In certain cases, Indian companies simply worked as production units with complete technical assistance from their foreign partner along with a100% buy-back arrangement.

India mainly depends on foreign technology for cultivation of flowers in greenhouses as she herself lacks an appropriate indigenous technology to make use of. Since initial investment is very high, many growers opt for joint ventures with international partners.

Presently, most of the Export Oriented Units in the country largely depend on foreign collaboration for technological assistance as cultivation of cut flowers under protected conditions is a relatively recent development with which locals are not very well-versed. Thus foreign collaborations have surfaced with companies from Netherlands, Israel, and France to name a few, with many of them having their offices in India.[5]

In most cases, the foreign collaborators supply one of the inputs of the floriculture industry like planting material, greenhouse or they are experts in marketing. Some, like the Dutch floriculture companies, also have their production bases in India, particularly growing summer and tropical flowers.[6]

Indian entrepreneurs in the Floriculture sector usually run medium sized businesses. They look up to joint ventures as a turn-key collaboration where they depend on the foreign companies to set up the projects and supply the inputs with buy-back

arrangements. However, in recent years, top Indian Corporate namely Reliance, ITC, Tata Tea, Essar Group, Bharti Group, Thapar Group etc. have ventured in to the Floriculture industry. Their plans are driven by demand from overseas retailers like TESCO, Sainsbury, Wal-Mart, Asda, Sears, Carrefour, Metro and K-Mart.[7]

In certain areas of East and North-east Himalayas like Nagaland and Meghalaya, the concept of Joint Venture is a non-starter as per their social, economic and tribal status. As most of the land is of tribal ownership, it is not feasible to own or purchase land from the tribals to go for such Joint Ventures. So when the land is owned by the local people, it has proved to be a risky endeavour for outsiders to come and invest in floriculture projects when there is a chance that the owner of the land may disagree on the returns of the project once the project is set up. In such a situation, the investor, who is a non-tribal, is always in the losing side. External factors such as political unrest/militancy have a further negative impact to attract investment in this sector.

The only scenario when a Joint Venture could be a success has been when the Service Provider ties up with the Department of Horticulture on a PPP (Public Private Partnership) model on government-land. Over here, an MOU is signed between the two parties, keeping in mind all issues of such a project. To highlight such a scenario, a good example would be the MOU signed between DHO, Jaintia Hills and North Bengal Floritech, Meghalaya on the Thadlaskein Horti Hub. In this Hub, which is on government-land, under the DHO, the Service Provider has set up a centre of excellence for cut flowers which are suitable to be grown in that region.

Cut flowers such as Gerbera, Dutch Rose, Lilium, Chrysanthemum, Carnation, Cymbidium, Catalleya orchids and filler crops such as Leather leaf and Ruscus are grown under hi-tech polyhouses with drip irrigation systems. Besides such infrastructure, cold room and precooling chambers have also been set up by the Service Provider. Other facilities such as farmers' training centre, farmers' hostel, flower collection centre and grading and sorting rooms have been set up by the DHO, who made a onetime payment to the Service Provider for setting up the infrastructure for cultivation of cut flowers mentioned above. The Service Provider, on its part, invests in transfer of technology for the cultivation of these flowers, as well as, in the farmers' field when smaller units are given to the farmers by the DHO. This 'Hub and Spoke' model for Gerbera in particular

at Jaintia Hills, where a Joint Venture has been established between the Service Provider and the DHO under the Department of Horticulture, has proved to be a grand success so much so that this district has been declared as the Gerbera district of Meghalaya. Every year at least twenty farmers are added to the long list of spokes which fall under this Joint Venture. The Service Provider has a MOU for the transfer of technology, setting up of infrastructure and most importantly, purchase of flowers from the farmers. The DHO is the monitoring agency. Hence, it can be observed here that a Joint Venture has been successfully established between a Service provider and the Department of Horticulture on government-land whereas the farmers/tribals are indirectly under the umbrella of this MOU between the Service Provider and DHO. So it is a win-win situation for both the Service Provider and the farmers and their success has led to the farmers finding an attractive alternative source of income which was absent with the traditional way of living. Success of such a venture lies in the fact that progressive farmers have been encouraged to start investing their own money rather than wait for government subsidies. This is beneficial for the Service Providers as well since they do not suffer from the insecurity of losing out on the investment they make on such projects as the Government is a partner to such a Joint Venture.

6.3: Lacuna in implementation of Government Schemes

Department of Agriculture and Cooperation under the Ministry of Agriculture is the nodal organisation for development of floriculture. 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. The Horticulture Division in the Department of Agriculture and Cooperation is vested with the responsibility of overseeing the overall accelerated development of the sector. It has been set up with a mandate to implement the programmes for improving the production, productivity and utilization of horticultural crops, support and formulate policies aimed for accelerated growth of horticulture, facilitate the availability of disease-free planting material and seeds of horticulture crops, provide the leadership and coordinate activities for the promotion of horticulture etc.

Several schemes have been initiated by the Government for promotion and development of floriculture. Integrated Development of Commercial Floriculture is one such scheme with the objective to improve production and productivity of traditional as well as cut flowers through availability of quality planting material and transfer technology, improve human resource capabilities for growing flowers scientifically, promote production of off-season and quality flowers through protected cultivation as well as improve farm post- harvest handling of flowers. State Governments have set up separate departments for promotion and development of the sector in their respective States.

However, there are some teething problems in such schemes and the most glaring of them all is the fact that the schemes often adopted by some States are centralised and operation and execution of schemes becomes a nightmare in the district level. But, it is to be noted here that those States which have decentralized the operation of the schemes as per the guidelines have met with success.

Another important factor that is often becoming a hindrance in implementing these schemes is that the State's contribution in terms of money has been nil or negligible as for example the micro-irrigation schemes adopted under the NCPAH guidelines.

Many a times, experiments and research conducted in the laboratories of Agricultural Universities and Research Institutes fail to reach the growers. Also, government planning lacks testing the selected crop in the conditions chosen before cultivation e.g. cultivation of *Lisianthus* in Mynkre, Meghalaya and *Anthurium* in Dimapur, Nagaland where crop quality and volume has not been achieved by the farmers. This is a classic example of failure of decision-making mechanism of District level officers regarding choice of crop as per the local agri-climatic conditions. Such errors might lead to either underproduction thereby not enabling the farmer to cover the project cost or overproduction whereby farmers have to take recourse to distress sale thus bearing the brunt of unsatisfactory returns. As a result, economic sustainability of farmers is hampered and they are unable to repay the loans taken from banks. Thus, despite the phenomenal contribution of NHM in these areas, the problem of sustenance still looms large.

So far as training and knowledge gaps are concerned – firstly, a group of farmers from a locality are selected with the help of local administration and the village headman. Secondly, these selected farmers need to be empowered with adequate land and access to water, power and electricity. Thirdly, selected farmers are to be made aware of the salient features of the project through meetings organised by the government. In these meetings, the District officials, the service provider and the farmers discuss the individual roles of these three key-players of the model. The farmer should be made aware of his/her role vis-a-vis contribution towards the project in terms of land, labour, power, water and so on. The service provider's role is to provide technical inputs namely polyhouses, drip irrigation, planting materials, fertilizers etc. and technical transfer in the form of periodical farmers' trainings at various stages of implementation of the project, not forgetting the buy-back of produce at a predetermined price as fixed by the national price index. The Horticultural Departments role is to monitor the progress, quality of inputs, time frame, and commitment of the farmers etc. in order to complete the project as per the norms. It is desirable that a MOU(Memorandum of Understanding) be signed between the farmers and service providers, with the Department being the monitoring agency. In the event of non-compliance of the above, especially periodical trainings/meets of farmers, the consequence is utter confusion mounting to poor quality flowers, lower remuneration to the farmers and other disappointments thereby causing the entire model to fail. This aspect is very important with the view that when a farmer is given the option to change from traditional mode of agriculture to a new concept of hi-tech floriculture, he/she has to be convinced that what they are going to venture into will provide them better returns and that is why the knowledge and training of farmers at the appropriate time is so very vital.

Operational problems surface more prominently in hilly areas where the terrain itself is not appropriate for structures like greenhouses. Precious time is wasted in levelling the slope to make it suitable for recommended greenhouse constructions and so on, that could be otherwise utilised for gainful cultivation. Lack of adequate electricity is a perennial problem along with insufficient water supply particularly in the summer months which arises due to not making use of rainwater harvesting during the monsoons. This directly hampers irrigation of crops. Post -harvest management suffers

due to the absence of proper cold rooms for storing the flowers after they are harvested. Many a times, there is no supply chain for flowers to be marketed to distant places. Due to the nonexistence of *mandis* as are common in metros like Kolkata and Delhi, farmers mainly have to take recourse to door-to-door delivery of flowers. Farmers are deprived from fair prices as markets are not regulated. Thus, poor logistics constantly maim the Government schemes from being implemented in the desired degree in this region.

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