

FOREWORD

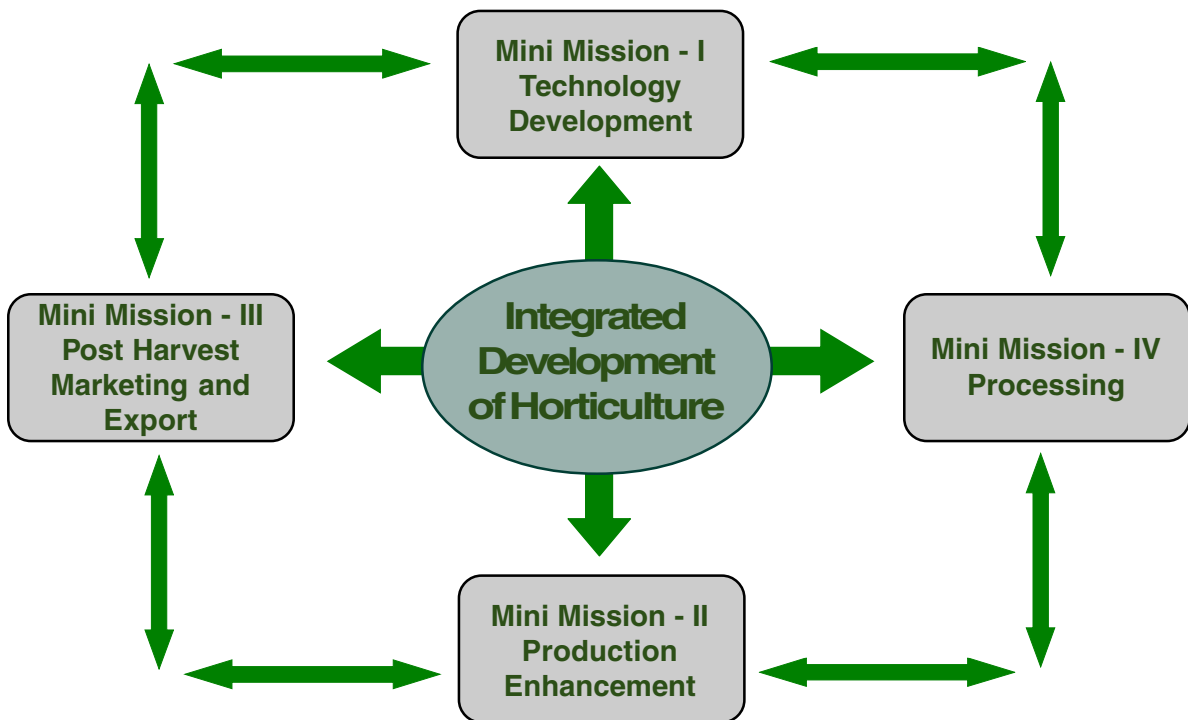
Small Farmers Agri-Business Consortium (SFAC) is the implementing agency for the Centrally-Sponsored Scheme of Technology Mission for Integrated Development of Horticulture in the North Eastern States, Sikkim, Jammu & Kashmir, Himachal Pradesh and Uttaranchal. SFAC takes the opportunity to print and present the revised guidelines, issued by Department of Agriculture & Cooperation (DAC), for implementation of the scheme during the Tenth Plan period and to serve as a ready recknor to all the concerned implementing agencies/departments and others.

As stated in the Ministry of Agriculture Memorandum No. F.No. 12-4/2003-Hort./TM dated the 8th October, 2003 the guidelines issued vide the Ministry's letter No. 21-35/1997-Hort. dated the 27th January, 2004 and F.No. 4-18/2005-Hort.T.M. dt. the 20th March, 2006 should form the basis for implementation.

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CENTRALLY SPONSORED SCHEME

TECHNOLOGY MISSION FOR INTEGRATED
DEVELOPMENT OF HORTICULTURE IN
NORTH-EASTERN STATES, SIKKIM, JAMMU & KASHMIR,
HIMACHAL PRADESH AND UTTARANCHAL.



DEPARTMENT OF AGRICULTURE & COOPERATION,
MINISTRY OF AGRICULTURE,
NEW DELHI

OPERATIONAL GUIDELINES FOR IMPLEMENTATION OF CENTRALLY SPONSORED SCHEME ON TECHNOLOGY MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE IN NORTH EASTERN STATES, SIKKIM, JAMMU & KASHMIR, HIMACHAL PRADESH AND UTTARANCHAL.

1. INTRODUCTION :

The horticulture sector, which includes fruits, vegetables, spices, plantation crops, floriculture, medicinal and aromatic plants, cashew nut, etc. has ample potential for development, as compared to other crops, in the North Eastern States, Sikkim , Jammu & Kashmir , Himachal Pradesh and Uttaranchal in view of the diverse agro-climatic conditions, varied soil types and abundance of rainfall, which has remained unexploited.

2. The development of NE region examined by various Commissions and Committees recommended for integrated development of horticulture in a mission mode to foster rapid growth of the region. Based on these recommendations a Centrally Sponsored Scheme on Technology Mission for Integrated Development of Horticulture in North Eastern region including Sikkim, was sanctioned by Government of India during IX Plan (2001-02) and further approved for implementation during X Plan. Considering the potential of Horticulture for socio-economic development of Jammu & Kashmir, Himachal Pradesh and Uttranchal,

which are contiguous hilly States, Government of India has approved for implementation of the Technology Mission on Horticulture to these States during 2003-04, with the title of the scheme as "Technology Mission for Integrated Development of Horticulture in North Eastern States, Sikkim, Jammu and Kashmir, Himachal Pradesh and Uttranchal."

3. The Goals of the Mission are to establish convergence and synergy among numerous ongoing governmental programmes in the field of horticulture development to achieve horizontal and vertical integration of these programmes to ensure adequate, appropriate, timely and concurrent attention to all the links in the production, post-harvest management and consumption chain, maximise economic, ecological and social benefits from the existing investments and infrastructure created for horticulture development, promote ecologically sustainable intensification, economically desirable diversification and skilled employment to generate value addition, promote the development and dissemination of eco- technologies based on the

The Technology Mission will have four Mini Missions:

Mini Mission-I	Research: Coordinated and implemented by ICAR.
Mini Mission-II	Production and Productivity: Coordinated by DAC and implemented by the Agriculture / Horticulture Departments of the States.
Mini Mission-III	Post-harvest management, marketing and export: Coordinated by DAC and implemented by NHB, DMI, NCDC, NAFED and APEDA.
Mini Mission-IV	Processing: Coordinated and implemented by MFPI.

blending of the traditional wisdom and technology with frontier knowledge such as bio-technology, information technology and space technology; and to provide the missing links in ongoing horticulture development projects.

4. The existing schemes of the DAC are being integrated and the existing pattern of assistance provided through the scheme will now focus on horticulture. Further, the existing schemes of DAC, MFPI, ICAR, NHB, DMI, APEDA, NCDC etc. which are directly concerned with the development of horticulture will become part of this technology mission.

- * The Four Mini-Missions of the scheme will be implemented under the supervision and technical guidance of above mentioned coordinating agencies. Each coordinating

agencies will submit an action plan for the year indicating requirements of allocations to Technology Mission Cell in the month of January, in order to facilitate Mission-wise allocations of funds for the year.

Mini Mission III & IV are proposal based while for Mini Mission -II work plans/action plan are to be prepared at State level based on project reports of each District. The work plans/action plan are to be prepared by the State Horticulture Department. In order to have proper linkages and coordination between various Mini Missions it is imperative that States should ensure that all the proposals in the preview of respective Mini Missions have approval of state level steering committee and Director (Horticulture)/Nodal Officer of the mission in the state is aware of the projects/proposals before these are



- sent to nodal agencies for seeking release of funds.
- 5. Approach to be adopted in implementation of the mission:**
- (i) State Level Steering Committee headed by the Chief secretary of the State concerned, constituted for overseeing the implementation of the mission in the States, would ensure constitution of coordination committee under the chairmanship of District Collector with District Horticulture Officer as Member Secretary of the committee for effective monitoring of implementation of the scheme. Local self bodies such as panchayats/village councils will be involved in identification of beneficiaries after carrying out baseline survey.
 - (ii) Project reports/work plan/action plan for each district would be prepared by experts/consultants/service providers for which funds upto 1% of the project cost could be spent.
 - (iii) For infrastructure development such as roads etc. the scheme is to integrate programmes of different Ministries/Departments, which have mandate to spend at least 10% of their allocation in North-Eastern Region. However, in the States of J&K, Himachal Pradesh and Uttaranchal the State implementing agency would integrate the programmes of different Departments for integrated development of each District. These programmes would form part of the project report of the District. The Steering Committee shall oversee the effective integration of the programme.
 - (iv) Director Horticulture of the State would act as Nodal Officer of the Horticulture Technology Mission who will also be the Member Secretary of the State Level Steering Committee.

- Besides other responsibilities of implementation of the mission the nodal officer would coordinate with different Departments/agencies relevant to the Horticulture development in the State, State Level Steering Committee and liaise with Technology Mission Cell at DAC.
- (v) The scheme is to be implemented in a project form for which a project report for each District is to be prepared integrating all aspects of development of the District with addressing the issues of production, marketing, processing and exports. The project report would visualize the requirements of infrastructure facilities for achieving this. The State work plan/action plan would be based on project reports of each District and consolidate the requirements under Mini Mission-I, II, III & IV; and subsequently, after approval of State Level Steering Committee, the relevant Departments would submit the proposals to concerned Departments/agencies for seeking financial assistance. Requirements under Mini Mission-I are to be addressed by the States to Nodal Officer of Mini Mission-I from ICAR. Development programmes to be undertaken under Mini Mission-II are to be addressed to Horticulture Technology Mission Cell, DAC. Proposals under MM-III for Post harvest management and cold storage development etc. are to be addressed to National Horticulture Board and proposals of Mini Mission-III for market development are to be addressed to Directorate of Marketing & Inspection, Department of Agriculture and Cooperation and proposals for processing units are to be addressed to Ministry of Food Processing Industries.

- (vi) Two Agri-Export Zones should be established in each State with suitable integration of programmes of Mini Mission-II, III & IV in order to create self-sustaining hubs for horticulture crops and their export, providing national focus to the scheme.
 - (vii) Information Technology needs to be employed for making the information available on website by establishing hyper linkages with different Mini Missions/ States/Ministries/ Departments/Organizations. Online information of projects, approved costs and details of beneficiaries up to farmer level should be made available within six months. Linkage should be established with community information centers set up by Department of Information Technology in North Eastern States. Similar approach needs to be developed/adopted in the States of J&K, Himachal Pradesh and Uttaranchal.
 - (viii) **Infrastructure facilities like tissue culture unit, nurseries, model floriculture centre, integrated mushroom unit, leaf analysis lab, disease forecasting unit, Bio-control lab etc. would be established only under close supervision and technical support from ICAR or any other Institution having capability. The State Level Steering Committee must ensure this.**
 - (ix) **Each project completed from the funds of Technology Mission must have a permanent board displayed indicating "Horticulture Technology Mission project, year of completion and the name of beneficiary".** Implementing agencies will ensure that multiple sources of subsidy are not availed by the beneficiaries for the same programmes.
 - (x) Hoardings at prominent locations must also be put up at each District Headquarter and on the roads leading to and coming from airports, bus stand and in the State capital depicting details of the Technology Mission programmes.
- 6. Submission of work plans/action plans/proposals:**
- (i) States will prepare yearly work plans/ action plan within the parameters and submit the same to the Technology Mission Cell of the mission at Department of Agriculture & Cooperation for release of funds. **The work plan/action plan should be accompanied with project report of each District and it should reflect consolidated approach at State level. The work plan/action plan should have assessment of export potential and detail quantification of all inputs and outputs; and have approval of Horticulture Commissioner.** Proposals on marketing should be submitted on prescribed format to Directorate of Marketing Intelligence of Ministry of Agriculture, Government of India. The proposals on Post Harvest Management should be submitted to National Horticulture Board on prescribed format and Proposals on processing should be submitted to Ministry of Food Processing Industries.
 - (ii) The proposals for Mini Mission-III and IV (Marketing) may also be obtained by SFAC from the States/State agencies. SFAC will forward the respective proposals to MFPI and DMI for their approval. MFPI would examine the proposals and recommend, Technology Mission Cell will examine the proposal further for directing SFAC to release the funds.

Funds of Mini Mission-IV shall be released by SFAC on the direction of MFPI. SFAC will keep DAC informed about the names, addresses and location of beneficiaries with dates of releases of funds. Nodal officer should also be satisfied about the progress under Mini Mission-I and Mini Mission-IV to have effective integration.

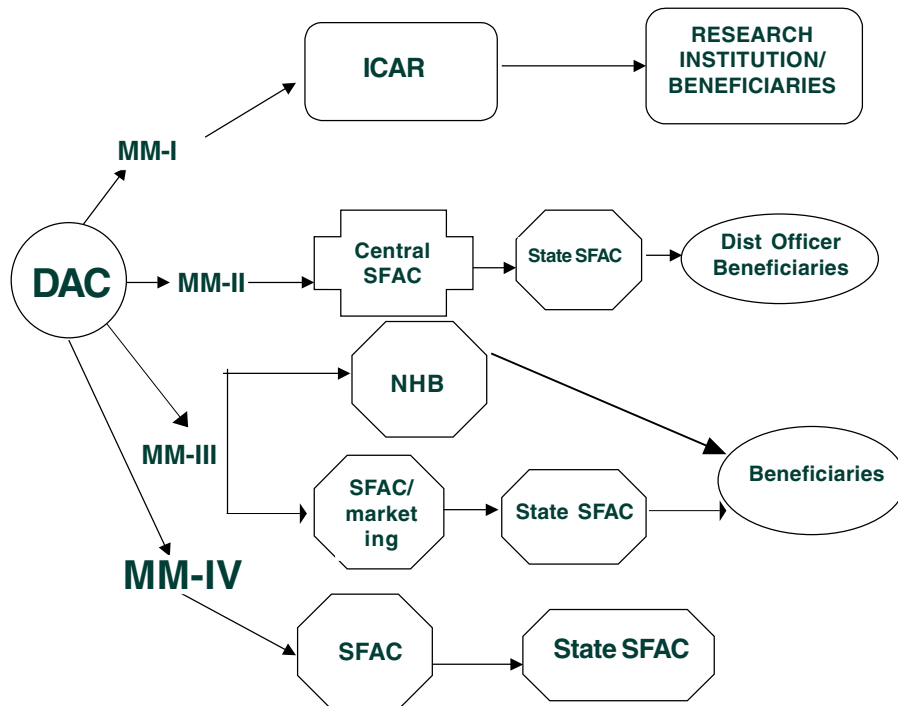
7. Monitoring of the implementation of the scheme:

- (i) The implementation of the Technology Mission on Horticulture would be monitored by a Central Steering Committee headed by Secretary (A&C). The Department of Agriculture & Cooperation would review the implementation of the mission with different nodal agencies of Mini Missions on regular basis. The Steering Committee of respective mini missions would oversee the implementation and monitor the same. These committees will meet at least once in a year. The implementation and monitoring of the scheme at State level would be ensured by the State level Steering Committee headed by the Chief Secretary of the State concerned. Chief Secretaries of the States would be members of the Central Steering Committee and the nodal officer of the State/Director (Horticulture) of these States would be members in the Steering Committees of different Mini Missions.
- (ii) **SFAC would interact with State Govts./State agencies, obtain their views on the programmes of the Mission and it may suggest modifications in policies or scheme parameters for consideration of DAC.**
- (iii) SFAC will obtain progress reports from State level agencies, consolidate

them and send to Technology Mission Cell at DAC. SFAC will obtain utilisation certificates from concerned agencies and forward them to the Technology Mission Cell at DAC. SFAC will also give statements on utilization of funds regularly and audited certificate at the close of each financial year in GFR-19.

- (iv) SFAC will ensure ground level monitoring of the scheme and send quarterly progress reports to Technology Mission Cell.
- (v) Each State will prepare an annual report giving details of the programmes implemented under the mission and benefits accrued to the State and provide it to Technology Mission Cell with list of beneficiaries along with their names, addresses and details of funds provided to them and for the purpose. The annual report should be made available to Technology Mission Cell and Central SFAC within 3 months of close of the year. SFAC must collect it from the States, consolidate it and submit to Technology Mission Cell at DAC.
- (vi) For efficient functioning and availability of funds in time, ICAR may appoint Nodal Officer one each in North Eastern States, J&K, HP, Uttaranchal. The nodal officer should be authorized to operate the programmes of mission.
- (vii) **SFAC would perform its role of monitoring and report progress to Technology Mission Cell, DAC. SFAC could act directly as an implementing agency for any component of the Technology Mission programme on the request of DAC.**
- (viii) **Central Institute of Horticulture, Nagaland would also monitor the**

FUND FLOW



implementation of Technology Mission programmes.

8. Routing of funds:

- (i) The funds for Mini Missions-II, III & IV (except to designated agencies like NHB) would be routed through Small Farmers' Agri-Business Consortium for further release to concerned agency/State Level SFAC of the States concerned. However, in the absence of State SFAC, the State would identify an agency in the State for routing of the funds of the mission. Funds of Mini Mission-I would be directly released to Nodal Officer (Mini Mission-I) of ICAR.
- (ii) "The Department of Agriculture & Cooperation (DAC) would release funds to Central SFAC, NHB & ICAR based on work plans. Central SFAC would release these funds to State level SFACs (or identified agency of the State) of respective States

immediately within 15 days after the funds have been received from Department of Agriculture & Cooperation as per physical and financial targets approved. On the directions of Secretary (Hort.)/ Director (Hort.)/Nodal Officer of the State for implementing Technology Mission, the State level SFAC (or identified agency of the State) will release funds to District Horticulture Officer/District Agriculture Officer. Separate bank account for funds of Technology Mission will be maintained at district level. The District Horticulture Officer/District Agriculture Officer will further release funds, as far as possible through cheques, to beneficiaries identified in the district on the basis of approved work plan (based on district project report). Even in case of big projects, as far

- as possible, funds should be routed through districts Horticulture officer/ District Agriculture Officer, to facilitate post disbursement inspection.**
- (iii) SFAC, NHB, ICAR, State level SFAC, DHO/DAO to provide to Technology Mission Cell, DAC, details of interest earned on the funds deposited in the Horticulture Mission accounts operated by them in the banks. These details must be furnished supported by certified bank statements every six months so that these funds could be appropriately utilized for the Technology Mission programmes particularly under the component of emergent requirements. For this the states have to submit separate proposal to the Technology Mission Cell, DAC.
 - (iv) Small Farmer's Agri Business Consortium would be paid service charges @ 0.5% of the funds routed through it with effect from 23-8-2003.
 - (v) The release of funds to District Hort. Officer/ District Agri. Officer will be through State SFAC (or designated agency of the state) on the recommendations of Director Horticulture/nodal officer of the mission in the state.
 - (vi) The Ministry of Food Processing Industries would implement its schemes, from 10% allocation of its outlay, for Horticulture Technology Mission programmes in North Eastern States. In case of additional requirement by MFPI, funds will be provided by the Horticulture Technology Mission.
 - (vii) The State level SFACs will not divert Technology Missions funds for any other activity other than for approved programmes of Technology Mission for which funds have been released.

Secretary (Hort.)/Dir. (Hort.) / Nodal Officer of each State must ensure that the funds don't keep lying with State level SFAC and are released immediately to Distt.(Hort.) Officer/ Agri. Officer for making the funds available to beneficiaries.

9. Horticulture Technology Mission Cell at DAC:

- (i) Technology Mission Cell at Headquarter would coordinate with Central Ministries/Departments/State Govt./Other agencies involved in implementation of the Mission. It would be responsible for budget formulation, release of funds to SFAC and other agencies, obtaining approval of proposals at appropriate level, and preparation of consolidated reports. It will also keep the State Governments informed through the Chief Secretary about overall progress of the Mission, initiate policy proposals and would be responsible for secretarial work relating to Steering Committees and other committees. The Cell would function under overall supervision of Horticulture Commissioner.
- (ii) SFAC is required to bring out an annual report about the Performance of the scheme in its role as an implementing agency and make available this report to the Technology Mission Cell.
- (iii) SFAC, the implementing agency, on receipt of funds from DAC should release these funds to designated agencies of the state i.e. state level SFAC within 15 days. Funds in any case should not remain unutilized with SFAC. If the implementing agency, on the basis of the progress reports / utilization certificates, is of the opinion that funds to a particular State Government are not to be released it

- may be brought to the notice of Technology Mission Cell, DAC, for decision.
- (iv) SFAC should utilize funds as per provision of the scheme and send progress report and utilization certificate to Technology Mission Cell in prescribed format. SFAC should get its accounts audited at the end of financial year. The audited financial report shall be made available to Technology Mission Cell, DAC.
 - (v) Projects relating to MM-III should be strictly appraised by DMI/SFAC on the basis of suitability of locations and their economic viability. These projects should be prepared in consultations with Director Horticulture of State and approved by State Level Steering Committee. Similarly MM-IV proposals to be appraised by SFAC / MFPI/State Govt. in a manner as stated for MM-III. The Technology Mission Cell should be kept apprised of the approval of proposals and release of funds by SFAC on regular basis.
 - (vi) Implementing agencies should ensure that multiple subsidy is not available from different sources for the same activity. Since a large amount of subsidy will be paid to the individuals, there should be regular audit at field level.
- 10. Associating NGOs in North-Eastern States in implementation of the Technology Mission on Horticulture.**
- (i) Approval of Ministry of Home Affairs would be required in case where NGO is a new one and has been established recently and has submitted the first proposal for assistance under scheme administered by Central Ministry/ Department in North Eastern States.
 - (ii) In case of an NGO i.e. already established and has been functioning, have received central assistance on earlier occasion(s), approval of Ministry of Home Affairs is not required. In case of doubtful antecedents of such NGO, it may be verified from the concerned Ministry/ Department from whom the NGO has received assistance for its projects earlier. If the Central Ministries/Central organizations are satisfied that the NGO is functioning on the ground and has properly utilized funds earlier released from Central/State agencies, they may process the application for sanction and the first installment can be released as per the rules. Subsequent installments would be released after thorough personal verification of the utilization of funds by senior officers from Govt. of India and if on inspection it is found that the funds have been properly utilized the Central Ministries/Central agencies can go ahead with further release of funds as per the approved schemes. In case funds are not utilized or mis-utilized, the Central Ministries/agencies should black list the NGO and take further actions as per the law. Subsequent release of installment would be subject to the same physical verification.
- 11. External Evaluation & Inspection of projects programmes under Technology Mission Schemes.**
- (i) In order to evaluate the impact/ progress of the scheme, external evaluation will be carried out at the end of the plan period or as decided. SFAC will call for the bids from the reputed agencies experience in the field of Horticulture and will finalize external evaluator in consultations with T M Cell, DAC. Terms of reference

- would be finalized by Technology Mission Cell.
- (ii) The State Departments of Horticulture will carry on regular inspection of the projects/programmes being implemented under various mini-missions of the schemes. The inspection should be carried out at least once in six months and inspection report sent to T M Cell regularly. The inspection report need to include location of the activities, funds spent on the activities, details of the beneficiaries including their names, addresses, funds made available and for the purpose and likely impact of the activity towards development of horticulture.

12. Mini Mission-I:

Mini Mission-I aims to provide Technological support by way of providing information on practices, nucleus planting material and skill up gradation for adoption of technology. Mini Mission-I will be a major link for inflow of improved technologies. Support under this mission shall be limited to identified gaps in technologies.

Nodal Officer of the Mini Mission-I, ICAR, will prepare an action plan for the year and submit to T M Cell for allocation of funds under following approved components.

12.1 SUPPLY OF NUCLEUS / BASIC SEED AND PLANTING MATERIAL FOR HORTICULTURAL CROPS

- (i) For production of required quantity of breeder seed and planting material of selected horticulture crops, support has to be provided in terms of technology and skill up gradation. Nucleus planting material and breeder seed will be provided along with guidance to large scale production.

- (ii) Under this programme, the varieties of fruits, vegetables, spices and plantation crops identified as suitable for the state will be multiplied through vegetative propagation as well as micro propagation (tissue culture). The nucleus / basic seeds and planting materials would be supplied by ICAR, to the departmental agencies, NGOs and private entrepreneurs for further multiplication and supply to the farmers and will be linked with the programme of Mini Mission-II on production of planting material / seeds.

12.2. Standardization of production and protection technologies

One of the reasons for the low yield of Horticultural crops is the cultivation of these crops primarily under rain-fed situations. Technology for improved production system would be provided by linking with crop commodity institute. Wherever, regionally differentiated technology is required it would also be developed through institutes capable to do so.

12.3 Technology refinement and imparting training through on-farm trials on farmer's fields and imparting training to extension functionaries.

The technologies identified and standardized for the horticulture production in the States will have to be popularized through field testing and providing wider awareness about them among the farmers. For this, training of the trainers will be required who can carry on demonstrations on the farmers' field for effective technology transfer and refinement. Similarly, for the improved production technologies and spread of improved cultivars and production practices

training will have to be imparted to the extension functionaries. ICAR will organise training of group of farmers of various States as per the needs and also test the proven technologies as per the agro climatic conditions through farmers participation. Nodal officer of Mini Mission-I shall identify the technological needs and provides support accordingly.

12.4 RELEASE OF FUNDS UNDER Mini Mission-I

- The (DAC) will allocate and release funds directly to ICAR/MM-I Nodal Officer.
- Fund will be released based on action plan received from ICAR/Nodal institute.
- ICAR/MM-I Nodal Officer will have close coordination with Directors of Horticulture of the concerned States and address the needs of the State under the mission.
- ICAR will prepare their action plan as per approved components. ICAR will asses the requirements and needs of State Governments through consultations with them.
- Directors of Horticulture should have close liaison with the local ICAR station/SAU for regular technical support.
- The Technologies and varieties finalized for a state should be transferred to the farmers field.
- Directors of Horticulture in consultation with local ICAR station/SAU should regularly depute district level staff to keep them abreast about the latest technologies.

13 Mini Mission II

This mini mission primarily aims at increasing the quantum of production and productivity of the horticulture produce in the region. The major activities in this mission would be

increasing production through area expansion under various horticultural crops having linkages with other missions. The supporting activities such as creation of water sources through community tanks, developing quality planning material of high yielding cultivars through nurseries, green houses, training of farmers, organic farming and staff etc. would form part of the MM-II.

13.1 Area expansion:

- The scheme should be implemented on cluster approach under Mini Mission-II in each district and with integration of production, marketing and export programmes. The project report/work plan is to be formulated for each District after base line surveys and is to be approved by State Level Steering Committee headed by Chief Secretary of the State concerned. The work plan should have assessment of export potential and detailed quantification of all inputs and outputs.
- The cluster approach will ensure that Jhoom cultivation is restricted and it will facilitate implementation of other components of production and post harvest management. The selection of beneficiaries and area should be with a view that linkages between activities of all the four Mini Missions could be integrated.
- It is imperative to develop horticultural crops as per the suitability of the crop in the State with suitable and improved high yielding cultivators. After the areas have been surveyed, treated and developed the farmers need to be provided guidance and assistance for adopting the cultivation of horticulture crops. They will have to be provided with assistance to change from the existing practice of Jhoom cultivation and subsistence

- agriculture to potential horticulture crops.
- The area expansion will also include assistance for replacement of old and senile plants. The assistance has been broadly categorized. **In case of the crops where planting material is in the form of seed like: vegetables and papaya etc. cost of cultivation**

will essentially and substantially will come down.

Cluster approach:

- 1) Cluster approach will ensure integration of linkages between activities of all four missions.
- 2) Area expansion should be linked with other components like community

Eligibility : Individual farmers, group of farmers and self help groups.

Pattern of Assistance : As given in the **Table-I.**

Table I

Rate of assistance for expansion of area under various horticulture crops.

Sl. No	Name of the Crop	Unit	Percentage assistance	Maximum limit	Remarks
1.	a) Fruits (perennials)+ b) Fruits (no-perennials)++ c) Rejuvenation of senile plantations+++	Hectare	a) 75% b) 50% c) 50%	Rs. 22,500 Rs.15,000 Rs.15,000	For improved cultivars
2.	Vegetables*	-do-	50%	Rs.13,000	-do-
3.	Root and Tuber Crops	-do-	50%	Rs.13,000	-do-
4.	Spices	-do-	50%	Rs.13,000	-do-
5.	Cashew nut	-do-	50%	Rs.13,000	-do-
6.	Medicinal Plants	-do-	50%	Rs.13,000	-do-
7.	Aromatic Plants	-do-	50%	Rs. 5,000	-do-
8.	Floriculture	1 unit of 0.2 hec.	50%	Rs.13,000	

+ Fruits (perennials) - assistance @75% of the estimated cost of cultivation of Rs.30000/- subject to a maximum of Rs.22,500/ha limited to 4 ha per beneficiary. The assistance for cultivation will be spread over a period of three years in the ratio of 50:20:30 in the first, second and third year respectively. Assistance for the second year will be subject to 75% survival of the new gardens and for the third year, the assistance will be subject to 90% survival of the plants. The perennial fruit crops covered under the scheme are orange, lime, lemon, mango, guava, litchi, pomegranate, apple, passion fruit, kiwi, walnut, cherry, pear, peach and others.

++ Fruits (no-perennials) - assistance @50% of the estimated cost of cultivation of Rs.30000/- subject to a maximum of Rs.15,000/ ha, limited to 4 ha/ beneficiary. The assistance for cultivation will be spread over for a period of three years in the ratio of 50:20:30 in the first, second and third year respectively. Assistance for the second year will be subject to 75% survival of the new gardens and for the third year, the assistance will be subject to 90% survival of the plants. The non-perennials fruit crops covered under the scheme are banana, pineapple, strawberry and papaya.

+++ Rejuvenation of senile plantations - assistance @50% of the estimated cost of rejuvenation of Rs.30000/- subject to a maximum of Rs.15,000/ha, limited to 2 ha/ beneficiary.

* **Vegetables includes baby corn; Assistance for seed varieties should not exceed Rs.4000/unit.**

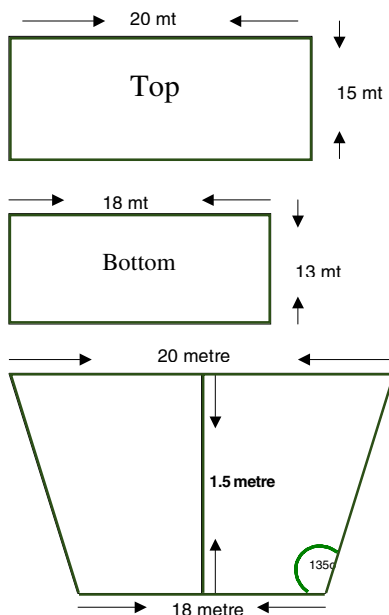
water tank for irrigation, plant protection, plasticulture, post-harvest management, processing and export etc.

- 3) Selection of beneficiaries: Beneficiaries should be selected in a contagious area. Whole of villages should be selected to ensure cluster approach.
- 4) Elite planting material and HYV only should be used for area expansion.
- 5) Grafted material wherever possible should only be used.

13.1.1 Model Floriculture Centre: The model floriculture centre must be established under overall supervision and technical support from ICAR. Total approved cost for establishing 1 MFC is Rs.70.00 Lakhs. Model floriculture center (MFC) should serve as the focal unit for the development of floriculture in this state. State Government should prepare the detail project report giving the details of location, infrastructure and equipments available and proposed to be purchase. Planting material/

germplasm should be obtained from ICAR or imported from outside with a view to get advantage in marketing the produce. The in charge of MFC should be a trained expert and he should necessarily visit one of the MFC already established in the country. State Government should ensure that the same person continues at least for three years at this centre. Model Floriculture Centre will be established in the public sector. Details of cost are at **Annexure 1-A**.

13.1.2 Integrated Mushroom Unit: The integrated mushroom unit must be established under overall supervision and technical support from ICAR. Integrated mushroom unit will primarily consist of one composting unit, one spawn production unit, one training unit and one processing unit at a total approved cost of Rs.50.0 lakhs. The in-charge of the integrated unit should be a qualified Plant pathologist. Integrated unit should be established in the potential area. Funds to be utilized on the



components provided in the Guidelines and the layouts provided by NRC mushroom, Solan, should be used in establishing the integrated unit. The staff of the unit should be trained at NRC Solan. The compost and spawn should be made available to the growers at their door step through the Truck provided to the mother unit. The produce should also be collected from the farmers, brought to the mother plant, processed and then marketed. The Integrated Mushroom Unit will be established in the public sector. Details of component wise cost are given at Annexure 1-B.

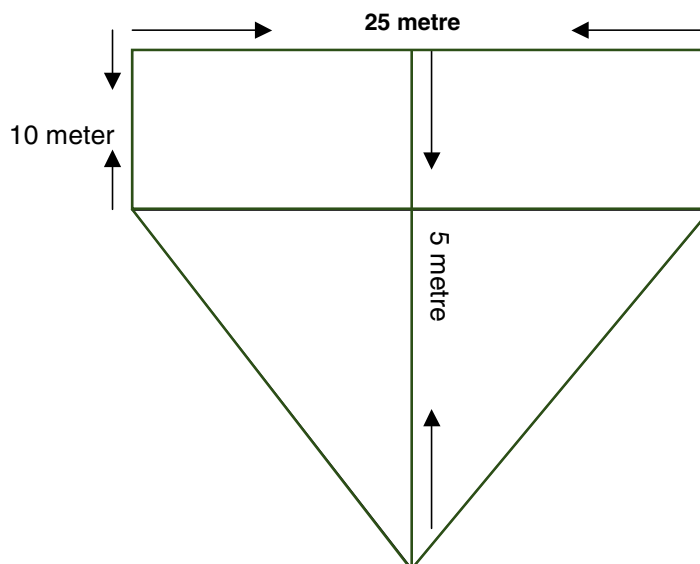
13.2 Creation of water sources:

Suitable water sources are to be created to ensure irrigation for the horticulture crops round the year. For creating a community tank assistance @ Rs. 1.0 lakh for providing irrigation to one hectare of area with a maximum limit of Rs.10.00 lakhs per tank for irrigating command area of 10 hectares will be provided. Assistance will be provided to group

of farmers or community. The community tanks should be pucca (concrete with RCC structure including all walls and bottom). With regard to size of the community tank, for providing three irrigations in 1 hectare of land with 1 cm of one irrigation, the capacity of the tank would be 399m³. The dimensions of such a tank, from top, would be length(20 m), width(15 m) and depth(1.5m) and, at bottom, length(18 m) width (13 m). The structure for construction of community tank having the capacity of 399 m³ could be as under:

These structures are illustrative and actual shape and size would depend upon the location of the community tank, which has to be designed as per the needs with the help of civil engineer to ensure the durability.

- The financial assistance for construction of a community tank of this size, (in RCC structure), is available @ Rs.1.00 lakhs.
- Functional life of such a community tank should be atleast 20-25 years.



Capacity:

Average Length x Average Breadth x Depth

$$\frac{20 + 18}{2} \times \frac{15 + 13}{2} \times 1.5$$

i. e. $19 \times 14 \times 1.5 = 399 \text{ m}^3$

Actual storage of water will be upto 1.27 metres depth with 20% free board.

The thickness of the walls of the tank should be 18 inches brick and cement plastered all around and inside out. The bottom of the tank should be at

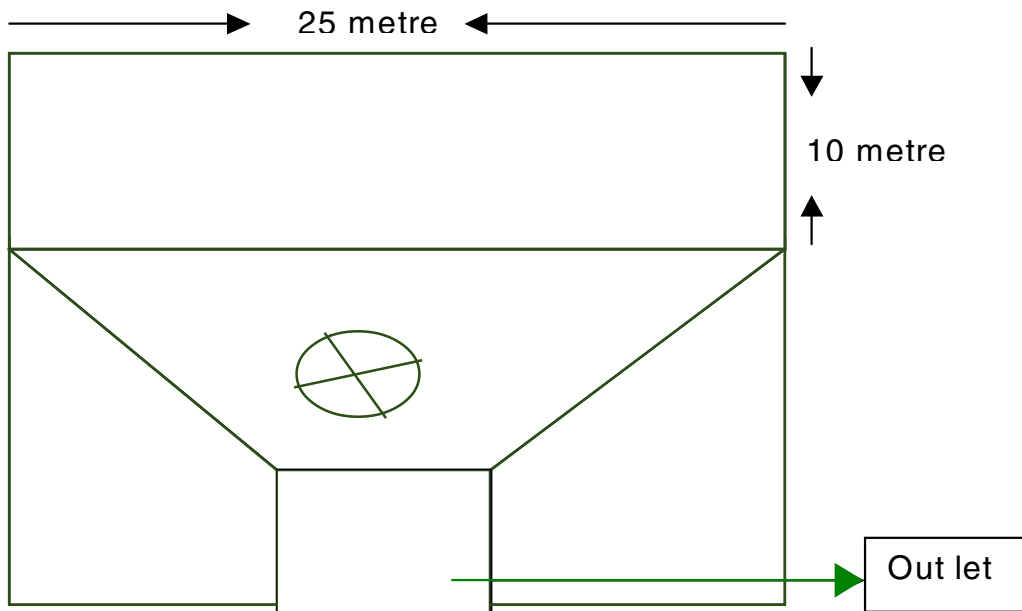
irrigation. The financial assistance would also go up proportionately.

* In case of holding water of a stream or riverlet the bund could be of the size as under. The design however may be adapted to the ground level situations.

* Assistance for tube wells or bore wells @ 50% of the cost with a maximum limit of Rs.12,500 will be provided. Tube wells can be set up either by the individual farmer or by the community.

13.3. **On farm water management :** Besides developing water sources to ensure round the year irrigation, the

Cross Section:



least 9 inches thick concrete. The above dimensions can be further increased for creating higher capacities as per needs and availability of land for providing

on-farm handling of water is also very important. The use of plastics for on farm management of water has gained significant importance in recent years. The plasticulture

applications include water distribution network through plastic pipes, plastic sprinklers, micro irrigation, micro sprinkler, nursery bags, green houses, net structures, walk in and low tunnels, plastic mulching etc. Drip irrigation is useful from the point of view of judicious utilization of scarce surface and ground water resources.

Plasticulture application has proved beneficial to promote the judicious utilization of water, sunlight and also reducing the vagaries of climate. In plasticulture, plastic material is used for efficient utilization of natural resources through various applications resulting in enhanced productivity and sustainability. Different grade of plastic material like Low Density Polyethylene (LDPE), High Density Polyethylene (HDPE) pipes for drip irrigation system, Ultra Violet Stabilized films for use as cladding material for green houses, plastic sheets of different thickness for plastic mulch are now available for use. These are light in weight, durable and cost effective.

One of the major sectors of plasticulture application is in the area of water management and conservation. Application of micro irrigation has helped in increasing productivity by 30 to 100 per cent with 50 to 70 percent saving of water. Fertilizer use efficiency is also enhanced when it is applied through drip irrigation. Increased productivity with saving of 30 to 40 per cent of fertilizer is achieved through fertigation. Thus, drip irrigation is becoming a major component of precision farming. Similarly, green houses / polyhouses have been found to be very successful for raising

nursery, off season production of vegetable and flowers, hardening of tissue culture platelets and saving plants from the vagaries of weather. The productivity improvement due to polyhouse is by three to four times, depending upon location. Green house grown fruits, vegetables and flowers also excel in quality of produce. **Horticulture Development through Plasticulture Interventions** is expected to accelerate the production and productivity of horticultural crops in sustainable manner.

Drip Irrigation:

- * Drip/Micro irrigation is a technology for providing irrigation to plants through network of pipes. It helps for supplying water directly to the root zone of the plant.
- * The term “Drip / Micro Irrigation” includes emitting water by drippers, micro sprinklers, mini sprinklers, micro jets, misters, fan jets, micro sprayers foggers, emitting pipes, micro tubes and similar other emitting pipes. The use of different components depends upon the requirement, which may vary due to crop type, water needs, plant spacing, soil type etc. All types of surface and subsurface irrigation systems are covered under Drip / Micro irrigation Technology.
- * The assistance under the scheme is available for all types of micro irrigation systems. The assistance will cover all farmers growing horticultural crops i.e. fruits, vegetables and medicinal & aromatic plants. The scheme will cover all farmers irrespective of the size of land holding. The scheme should be taken up on compact area basis.

* The assistance for drip irrigation will be 50% of cost with maximum ceiling of Rs.28,500/- per ha. Further details

of the scheme, if required, may be obtained from Department of Agriculture & Cooperation.

COST CEILING FOR DIFFERENT CROP SPACING AND AREA

I. Maximum ceiling for an area of 0.4 ha area

50% of total cost of system or following whichever is less

Amount in Rupees

Area	Maximum permissible assistance for different spacing (metre) and State categories												
	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	3x1.5	2.5x2.5	2x2	1.5x1.5	1x1
	oilpalm												
0.4 hec.	4800	5600	5200	6200	7100	7300	7900	8900	10100	10000	10700	11400	11400

II. Maximum ceiling for an area of one ha

Amount in Rupees

Area	Maximum permissible assistance for different spacing (metre) and State categories												
	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	3x1.5	2.5x2.5	2x2	1.5x1.5	1x1
	oilpalm												
1.0 hec.	8100	8900	9300	10000	14300	15100	18600	16800	20200	19500	20200	28500	26600

III. Maximum ceiling for an area of four ha

Amount in Rupees

Area	Maximum permissible assistance for different spacing (metre) and State categories												
	12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	3x1.5	2.5x2.5	2x2	1.5x1.5	1x1
	oilpalm												
4.0 hec.	26500	29700	37100	34600	46400	57400	71400	81800	87200	68500	83800	109200	93400

Sprinkler Irrigation

Sprinkler irrigation enables water to be sprinkled with the help of a network of pipes and sprinklers (nozzles) on the plant foliage. Sprinkler irrigation system has become popular as a method of irrigation under undulating topography particularly for light

textured soils for a variety of crops. Sprinkler system is ideally suitable for close spaced crops like vegetables and floriculture in the horticulture sector.

The pattern of assistance would be 50% of the total cost subject to a maximum ceiling of Rs. 15,000/- per hac. for Small, Marginal, SC, ST and

women farmers and 33% of cost subject to a maximum of Rs. 10,000/- per ha for other category farmers.

Since sprinkler sets, unlike drip system, are moveable, only those farmers who have not availed of assistance for sprinkler irrigation from any other scheme would be eligible for assistance under this scheme. Depending upon the type of crop a farmer can avail assistance for sprinkler as well as drip irrigation the combined area of which should not exceed four ha per beneficiary. However, assistance for both sprinkler and drip irrigation will not be available for a single crop being cultivated by the farmer.

PLASTIC MULCHING

Covering of soil around the root zone of plant with a plastic film is called plastic mulching. It is an effective practice to restrict weed growth, conserve moisture and reduce the effect of soil borne diseases through soil solarization.

Assistance would be provided @ 50% of the cost of plastic film subject to a ceiling of Rs. 7000 per ha. A farmer can avail assistance for maximum of one hectare of cultivated area only. In case, the farmers is availing assistance for less than 1 ha area, the assistance amount should be proportionately reduced.

In India plastic mulching is yet to gain momentum. As a result the quantity of film required per farmer is very small. Since it would be difficult for the supplier to supply the film to individual farmers, it is proposed that the implementing agency in the State may arrange to procure the plastic film in bulk as per the estimated requirement for a quarter / six months/ year. The

film is being manufactured by M/s Indian Petrochemicals Corporation Limited or any other company with quality bearing BIS standards. Fifty percent of the cost of the film can be met from subsidy amount to be released to the farmers and the balance 50% farmers' contribution can be collected in advance or at the time of supply of film by implementing agency to the farmers.

GREEN HOUSE

The greenhouse technology is the technique of providing favorable growth conditions to the plants inside fabricated structures with ultra violet stabilized cladding material. In its simplest form it is used to protect the plants from the adverse climatic conditions. The greenhouse technology is used to provide the optimum growth conditions of light, temperature, humidity, CO₂ etc for the best growth of plant to achieve maximum yield and best quality.

The greenhouse structure could be constructed by the beneficiaries themselves using the local material also. However, it is advisable that the cladding material should be only UV stabilized film since UV stabilizer provides protection against the ultraviolet rays of sun. The film is available in 200 micron thickness and can be obtained from any regional office of IPCL or other Companies which manufacture the film as per the specifications and quality bearing BIS certification.

One kg. of UV film of 200 micron thickness covers about 5.3 M² area. Hence the total quantity can be calculated accordingly. The procedure for obtaining film is same as in

mulching. State Government may compile the requirement of UV film on a quarterly / six monthly / annual basis and purchase in bulk. Farmers' contribution can be taken in advance when they register their demand.

A farmer can avail assistance for a maximum area of 1000 M². The assistance can also be given on farms belonging to SAUs/ NGOs/ State Government Farms / Central Government Farms. A maximum area of 1000 sq. mt can be laid under greenhouse for one farm. Assistance for greenhouse would be provided @ 50% of cost for covering up to 1000 sq. m @ Rs.325/- Sq.m. for hi-tech and Rs.125/- Sq.m. for normal green houses

Low Tunnels

Low tunnels are miniature form of greenhouses to protect the plants from rains, winds, low temperature, frost and other vagaries of weather. However under low tunnels, artificial controlling of conditions is not possible. The low tunnels are very simple structures requiring very limited skills to maintain, are easy to construct and offers multitudinal advantages. It has been proven that with low tunnels seedling can be raised very quickly. Sometimes the advancement of the period is by more than one month giving the farmer extra one month for his main crop. It is therefore, felt that the application needs to be supported as it will attract the small and marginal farmers who may not be in a position to take up green houses.

For construction of low tunnels film of 100 micron would be sufficient. The cost of a 100 micron thick UV film would be about Rs.10 /- M². The

assistance would therefore be provided @ 50% of the cost or Rs. 5 / M² whichever is lower, for a maximum ceiling of one ha.

Shade Net Houses

Shading nets are used to provide relief to the plants from the scorching sunlight, high winds, direct rainfall as well as insects and pests. Shading nets are being used for raising nursery, indoor plants, hardening of tissue cultured platelets and growing of vegetables also. The shading nets are being used almost throughout the country. It is, proposed to continue the assistance for shading net application during the IX Plan.

The assistance would be applicable only for the shade nets (without structure). The pattern of assistance would be @ Rs. 14/ sq. m or 50% of the cost which ever is lower for a maximum of 500 sq. mt area per beneficiary.

Anti Hail Nets

These nets are used to protect the crops from hails in hail prone areas. The anti hail nets are normally provided for each individual tree. The assistance would be provided only in hail prone areas.

Assistance would be provided @ Rs.500 / - tree Or 50% of the cost whichever is lower for a maximum of 50 trees per beneficiary. The states are required to send specific proposals for this to technology Mission Cell for approval of Hort. Commissioner before disbursement of funds on this component.

Bird Protection Nets

Huge losses are caused by birds in

most of the crops. The crops like grapes, guava, pomegranate are severely infested by parrots. Sometimes the parrots can destroy the entire crop within hours. To avoid such huge losses, the use of bird protection nets have been suggested. Financial assistance would be provided @ Rs.2000/ha or 50% of the cost whichever is lower for maximum area of 1 ha. The states are required to send specific proposals for this to technology Mission Cell for approval of Hort. Commissioner before disbursement of funds on this component.

DEMONSTRATIONS OF PLASTICULTURE TECHNOLOGIES

Most of the plasticulture technologies are relatively new and have yet to reach to the farmers. One of the powerful tools is to propagate it through demonstrations at selected key places through farmer participation at strategic locations.

The demonstration will be done only on recognised farms belong to State Governments/ Central Governments / SAUs/NGOs/ ICAR Institutes and Progressive farmers growing horticultural crops as indicated under Drip Irrigation Installation.

The procedure to implement this component of the scheme is the same as suggested for drip irrigation installation component. The manufacturers/suppliers approved for drip irrigation installation may lay demonstrations.

13.4 On Farm Handling Unit

Post harvest losses of fruits and vegetables are very high which are

attributed to poor handling at farm level. In absence of proper handling and storage facilities large quantity of fruits and vegetables are wasted. This calls for development of proper facilities of storage and handling at farm level.

Pattern of assistance: The assistance will be given @ 30% of the total cost subject to the maximum of Rs.50,000/- per beneficiary.

13.5 Production of planting materials:

One of the most important reasons for the low productivity of horticulture sector is the availability of inferior quality of planting material and seeds. Production and distribution of the right kind of planting material therefore becomes extremely important to make this mission successful. The main objective of this programme is to produce true to the type genuine varieties of planting materials which are disease free, healthy and suitable for tropical, sub-tropical and temperate climatic conditions. The existing production of planting material by the departmental progeny orchards/ nurseries and tissue culture centers is much below the annual requirement of the growers. It is therefore proposed to integrate the production of planting material through the establishment of small and big nurseries, tissue culture centers, herbal gardens and mushroom development centers. Under this scheme assistance will be provided for the setting up of integrated multi crop nurseries, progeny gardens, herbal gardens and tissue culture centers by the State Government, Private, Co-operatives and NGO sector as per the pattern of assistance which will exclude cost of land, building and barbed wire fencing

which will have to be provided by the beneficiary:

Planting material of improved varieties of Horticulture crops shall be multiplied at these nurseries. Mother plants should be obtained from ICAR institutes or imported from outside as per suitability of cultivars. Nurseries should be established in such a manner that planting material of all horticulture crops can be multiplied and supplied in bulk. Nurseries should be located in the areas which are accessible to farmers. Nurseries should be self sustaining after the initial grant and it has to be revolving fund. In private sector while selecting the beneficiaries' preference should be given to Agriculture graduates and in Government sector the nurseries should be manned by the experts. The State Government must ensure quality control of the planting material produced by these nurseries through regular checks/ inspection.

All the nurseries whether in Govt. or private sector must have assured irrigation facilities throughout the year. If the facilities are not available, it must be ensured through by construction of community water tanks on the site.

13.5.1 Integrated multi crop nurseries:

Planting material of horticulture crops/ varieties recommended by ICAR under MM-I will mainly be multiplied at these nurseries. Private sector will be encouraged to come forward for taking up of these activities. It is proposed to set up at least 2 - 3

integrated multi-crop nursery in each state. The integrated nurseries will be provided with hi-tech facilities and must have a small green house, drip irrigation facilities, mist and fogging facilities and vehicle for transporting the planting material from the nurseries to the door step of the farmers. The nurseries should be set up on a minimum area of 2 hectares and should have the capacity to produce a minimum of 5 lakh planting material per year.

Component wise cost for nurseries is at **Annexure-I-C**

13.5.2 Small Nurseries

In bigger States where 2 - 3 integrated multi crop nurseries may not be sufficient to meet the requirements of the planting material in the State, and it is difficult to transport the planting material to the remotest places of the State. It is proposed to set up a few small nurseries at the district level. Encouragement will be given to locally unemployed agricultural graduates and women farmers for setting up of these small nurseries. These nurseries should have the capacity to produce minimum of 2 lakh plants per year. The State Government will have to ensure that the planting material produced in these nurseries are of good quality and of improved varieties.

13.5.3 Progeny and herbal gardens

These gardens will be encouraged in private sector with an assistance of 50% of the cost of the garden. However, in public sector, progeny and herbal gardens will be established with an assistance of 100% cost. However, for NGOs and private sector assistance will be Rs.1.50 lakhs.

13.5.4 Tissue Culture Units

For supply of quality planting material in large quantities, which is free from diseases and viruses, tissue culture units in each state needs to be set up. Effort should be made to set up these units in the private or cooperative sector. Assistance upto

50% of the cost of the project subject to a maximum limit of Rs.10.00 lacs would be provided if it is set up in the private/NGO sector. In case of public sector, 100% assistance with a maximum limit of Rs.21.00 lacs will be provided. Tissue culture units must be set up only with close supervision and technical support from ICAR.

Pattern of Assistance: The pattern of assistance is given at Table-II.

Table-II

Sl. No.	Nursery	Sector	Percent of cost	Rate of Assistance	Limits
1	Integrated Multi Crop Nursery	a) Public Sector b) Private Sector	100% 50%	Rs.18 lakhs Rs. 8 lakhs	Minimum area 2 hectares producing mini. 5 lakh plants
2	Small Nursery	a) Public Sector b) Private Sector	100%	Rs. 3 lakhs	Minimum 3 lakh plants per year.
3	Tissue Culture	a) Public Sector b) Private Sector	100% 50%	Rs. 21 lakhs Rs. 10 lakhs	Minimum 15 lakhs plants per year
4	True potato Seed centre	a) Public b) Private		Rs.12.5 lakhs per centre Rs. 2.0 lakhs per centre	
5.	Progeny and herbal gardens	a) Public b) Private	100% 50%	Rs. 3.00 lakhs Rs. 1.50 lakhs	

13.6 Transfer of Technology

Transfer of Technology through training, frontline demonstration, publicity and training of the trainers, Human resource development through training and demonstrations are an integral part of the mission. Under this programme it is proposed to take up training of the farmers, field level workers and officers. Appropriate training is required to be

imparted to the farmers for the adoption of high yielding varieties of crops. Training of the officials concerned with the implementation of the mission and the field level workers who will finally train the farmers need to be trained. The important activity under the trainings is to provide resource material to the trainees and acquaint them about various farming techniques through exhibitions and demonstrations. This activity will be

carried out both by government sector as well as private and NGOs.

In order to familiarize the farmer about the production practices being followed in other states/Institutes in the country, it is proposed to organise trainings and field visits outside the state. The assistance will include transportation, lodging, per diem allowance and training kit. The training-cum-visit will be organized for a minimum period of 7 days.

Further, trainers at the level of project officers, district horticulture officers, agricultural officers and extension workers will be trained in the modern technological advances in horticulture at various ICAR Institutes in the NE and outside the NE States. These officers in turn, will train the staff and farmers in their respective states.

In order to carryout the training programme it is proposed to provide assistance for setting up of at least one supervisory level training centre in each state and 3 to 4 gardeners training centres at different locations in each state. Assistance will be in the form of one time grant and recurring expenditure will have to be borne by the state government.

Eligibility: Beneficiaries should be selected from among the farmers already engaged in horticulture activities under various components. A seven day training programme will entail a cost of Rs. 1500 per farmer within the state and Rs.2500 outside the State. Training schedule for the full year should be drawn up in advance with the training institute/ Research station. The assistance involves transportation charges, per dime allowance to farmers and at the end of training farmers should be provided with minikits of seed/ planting material/ spawn. Development of women farmers should be given priority. These programmes should be included in work plan of the State and project report of each District.

District/Block level horticulture staff should be trained in latest technologies preferably outside the State. An assistance @ Rs. 50,000. is available per trainee. Trained Staff will be helpful in training of other staff and farmers. Provision has been made for establishing Supervisory and Gardener level Training centers. ICAR should be consulted for establishing these centers.

Pattern of Assistance: The pattern of assistance is given at Table-III.

Table-III

S.No	Type of training	Pattern of assistance
1.	Training of Farmers	Rs.1500 per farmer for 7 days
2.	Training of Farmers outside state	Rs.2500 per farmer for 7 days
3.	Training of trainers	Actual cost Max. limit Rs.50,000 per participant
4.	Supervisory training centre	Rs. 20 Lakhs per centre
5.	Gardeners Training Centre	Rs. 2 lakh per centre

13.7 Popularization of Organic farming and use of bio-fertilizers:

In view of the growing demand for the organically produced food items worldwide the natural advantage of the hilly region in this regard needs to be fully exploited. In order to help the growers obtain the required certification for organically produced crops awareness about this will have to be increased first of all through training and distribution of information material. It is proposed that the farmers who are adopting the organic farming would be given assistance @ Rs. 10,000 per hectare. Once the group of farmers are adopting organic farming assistance for the certification @90 per cent of the cost limited to Rs.5.00 lakhs per group of farmers would be provided.

The organic agriculture or organic farming is a crop production system respecting the rules of nature. In organic farming, the farm is viewed as a holistic unit biologically complete, balanced, living and dynamic which is ecologically stable and sustainable. The objective in organic farming is to achieve a sustainable farming system that preserves the environment and soil fertility for our future generations. It is now being recognized that “traditional agriculture” is a repository of several indigenous practices in respect of nutrient management and plant protection measures, There is, therefore an increasing emphasis on promotion of organic farming through use of crop residues crop rotation management, use of vermi compost , green manuring and adopting ecologically sound plant protection measures. The organic farming also make use of bio fertilizers which contain living cells of selected strains

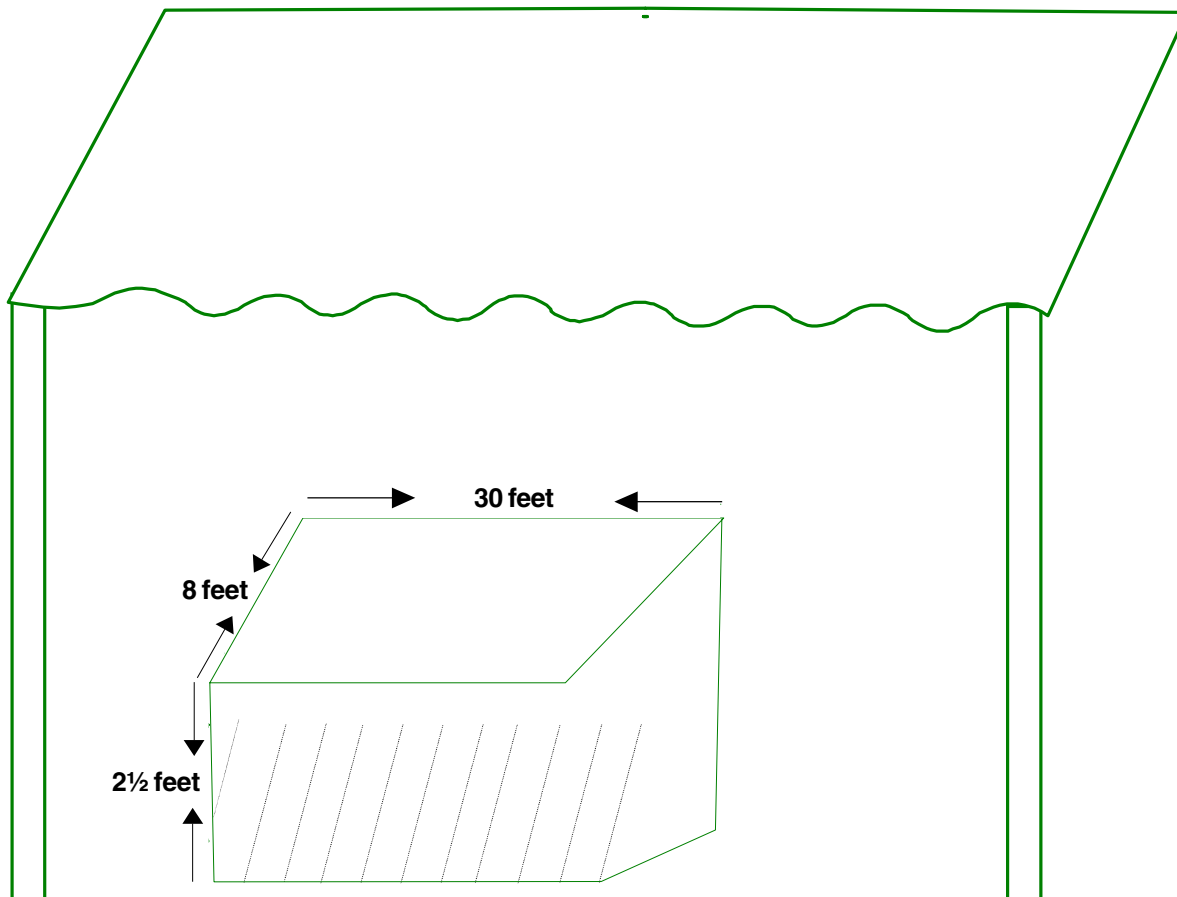
of micro organisms mixed with suitable carrier material which are capable of mobilizing nutritionally important elements from non usable to plant useable form through biological process. In recent years bio-fertilizers have emerged as an important component of integrated plant nutrient supply system (IPNS) and hold a great promise to improve the crop productivity through supplemental nutrient supplies. Some of the important bio-fertilizers are:

- a. Nitrogenous bio-fertilizers
- b. Phosphatic biofertilizers
- c. Organic Waste Recycling/ decomposing inoculants

Eligibility : Individuals, group of farmers, cooperatives etc.

Pattern of Assistance: An assistance up to a maximum of Rs.30000 will be provided for establishment of vermin-compost units. The vermi-compost unit should have concrete structure of 30 feet length, 8 feet breadth and 21/2 feet height. This unit should be covered by a raised roof. Roof could be erected on local material covered with tin sheets/ asbestos sheets/ local material. The vermi-compost unit could be divided into 12 rows of 21/2 feet each. The alternate row could be filled by the compost material and inoculated by the organism. It is not necessary to erect walls to divide the compost unit into rows.

- 13.8 Promotion and popularization of agricultural equipments: The Horticulture Technology Mission will strive to popularize the use of appropriate agricultural equipments to improve the efficiency and help farmers in reducing their physical labour in the farms.



The beneficiaries may be selected out of the farmers who have been selected for area expansion and other components.

Pattern of Assistance : Assistance is available for training of farmers @ Rs. 1000 per farmer and for purchase of manually operated equipments limited to Rs. 1500 and for power operated equipments limited to maximum of Rs. 5000, for power tiller Rs. 45000 and Rs. 9000 for diesel engine.

13.9 Promotion of Integrated Pest Management : The IPM Package of Practices for Horticultural crops as well as vegetable crops need to be developed by ICAR under Mini

Mission-I. Integrated pest management practices being promoted by Department of Agriculture & Cooperation may be considered for adoption in the States with consultations between Director Horticulture of the state and ICAR.

Eligibility : For adoption of integrated pest management, individual farmers, group of farmers, cooperatives and societies are eligible. Bio Control lab. should be established in public sector/ ICAR research institutions/corporation or society. The disease forecasting unit should be established in public sector or ICAR research institute.

Pattern of Assistance: In order to

promote the use of biopesticides like neem-based pesticides, *Bacillus thuringiensis*, Pheromones (for early detection of pests) and *Trichoderma* which are available now commercially in the country, financial help to the tune of Rs.1000/ha. is to be given to the farmers growing horticultural crops.

Assistance for establishment of Bio-control lab in public sector is available @ Rs.80 lakhs each (Rs.50 lakhs for the construction of Bio-control Lab. and Rs.30 lakhs for equipment and vehicle) for mass production of Bio-control agents (*Trichogramma*, *Trichoderma*, *Chrysoperla*, NPV, etc.) to promote IPM. Bio-control labs are to be established under supervision and technical support from ICAR.

In order to undertake forewarning of pests and diseases in horticultural crops financial assistance of Rs.4 lakhs per unit is available. The Disease and Pest Forecasting unit would be maintained by the Agricultural Universities of the State/ Department of Horticulture. Disease & Pest forecasting unit should essentially have computer system which can correlate with weather forecasting Department. There should be provision for collection of data of previous years. Forecasting unit should be able to correlate present weather condition with earlier data and make a forecast and remedial measures for the likely out break of disease & pest in the region. The unit can also have linking facilities with the local ISRO Station for getting the data from Satellite. The disease forecasting units should essentially be integrated with Plant Health Clinics.

Details of Bio-Control Lab, Disease forecasting unit etc. are at Annexure-1-D.

13.10. Promotion of Integrated Nutrient Management (INM) / Integrated Pest Management (IPM) - Sanitary and phytosanitary-100% assistance to Public Sector on project basis for creation of infrastructure for sanitary and phytosanitary certification facilities.

13.11. Establishment of Plant Health Clinic: To provide support for diagnosis of diseases and assist in quality management it is proposed to set up plant health clinics. Plant health clinics shall be established at the Directorate of Horticulture, stations of ICAR or SAU's or in private sector. For setting up of such units it is proposed that assistance to the state Government/ PSUs upto a maximum of Rs.20.00 lakhs per clinic may be provided which would cover the cost of building and necessary equipments. The staff will have to be provided by the state governments and all the expenditure on this account will have to be borne by the state government. Assistance to the private sector units would be limited to Rs 5.00 lakhs. Plant Health Clinic may include the following equipments:-

i) Computer (ii) pH Meter (iii) Conductivity Bridge (iv) Microscope (v) Seeds tester (vi) BOD incubator (vii) Shaker (ix) Centerifuge (x) Glass ware (xii) Eliza Testing Kits (xiii) Lab furniture & Racks (xiv) Water distillation units (xv) Provision for skilled manpower on contract basis (xvi) Construction of lab. The clinics are to be established under supervision and technical support from ICAR or institute having capability.

Plant health Clinic, Bio-Control Lab and Leaf Analysis Lab should be housed in the same building as far as possible. This would save funds which would have otherwise spent on construction of building separately.

13.12. Establishment of Tissue/ Leaf analysis laboratories : For determination of nutrient status and their availability leaf tissue analysis is very essential. Depending on the size of the state one to two laboratories per state can be provided. Private sector would also be encouraged to establish such labs which can charge fee for each sample/nutrient analysis. Leaf analysis is more reliable than soil analysis for nutrient management of orchards. Each laboratory will cost Rs. 20 lakhs. It is proposed to provide 100% assistance up to a maximum of Rs.20 lakhs to the State Government/PSU for setting up of such a laboratory which would include the cost of construction of laboratory and equipments. The recurring expenditure on account of personnel etc, will have to be borne by the State Government. For setting up of such a laboratory in private sector a grant upto 50% of the cost subject to a ceiling of Rs.5.00 lakhs will be provided. The leaf & tissue analysis lab may have the following facilities. (i) Micro kjeldahl unit (ii) Atomic Absorption Spectro Photometer (iii) Flame Photometer (iv) Centri-fuge (v) Balance (Analytical & Precision) (vi) Oven (vii) Flash Evaporator (viii) pH meter (ix) conductivity meter (x) water boiler (xi) Hot Plate (xii) BOD incubator (xiii) water Distillation Unit (xiv) shaker (xv) Spectro Photometer (xvi) Stereo binocular Microscope

(xvii) constructing lab. The labs are to be established under supervision and technical support from ICAR.

13.13. Centers of Excellence for Horticulture Mission Programmes

Requirements for the “Centre of Excellence for Horticulture Mission Programmes” District Horticulture Officer would select compact area for his District which would be developed in to a “Centre of Excellence for Horticulture Mission Programmes”. Area should be contiguous consisting of at least 40-50 hectare land. This land could comprise plots of farmers (beneficiaries) from same village. Location of the area should be easily approachable, preferably on the main roads or nearby. Each District Horticulture Officer should develop atleast one Centre of Excellence as per the requirements and potential in his District.

The Centre of Excellence would be developed in close coordination with ICAR, ICAR would provide quality planting material and technology for making these centres a success story.

Area expansion programmes in the district for different crops with improved varieties to be implemented in contiguous manner and under technical support of ICAR. The Centre of Excellence would implement all the components of T M with an end-to-end approach and in coordination with all the Departments/agencies concerned. The following systematic approach would be useful in establishing these centres through formation of “self help groups” of beneficiaries to use common facilities.

- 1) Selection of Beneficiaries/Area.
- 2) Selection of crops with their improved

- varieties under the guidance of ICAR and procurement of planting materials of different crops from ICAR.
- 3) Creation of Community Water Tanks including community over-head tank on hill (if hill area is taken) at appropriate heights.
 - 4) Installation of Drip Irrigation System linked with Diesel Engine.
 - 5) Establishment of small integrated multi-crop nursery in private sector under the overall guidance of ICAR which will provide technology and mother plants for multiplication. Nursery to have shed nets & poly house area.
 - 6) Establishment of five (100 sq. mt.) Green House (Poly House).
 - 7) Each centre will have at least 1 (one) Vermi Compost Unit.
 - 8) At least 2-3 Model Floriculture Centres and 2-3 Integrated Mushroom Units can be established in each State at selected Centres of Excellence.
 - 9) Centre of Excellence is to be linked with marketing centre/rural primary market/apni mandi.
 - 10) Prominent sign board to be displayed on the road side indicating with arrow the site of centre of Excellence. Another board to be displayed on the site mentioning “ Horticulture Mission Centre of Excellence- year——”.
 - 11) In a year group of 10 (ten) farmers from each centre of excellence would visit Horticulture development centres outside the state. This should be ensured by the DHO of the district and Director (Hort.) of the State.
 - 12) National Horticulture Board (Scheme No. 3) would also be availed by each DHO who would send a group of 10

(ten) farmers outside the state, to specialized Horticulture Development Institutions/ bodies for educating the farmers on latest developments in horticulture.

- 13) Trainings from each District per year; 10 farmers for training to ICAR, 10 farmers for training to NHB, 10 farmers for training inside the state. 10 farmers for training outside the state must be sent for trainings.
- 14) Trainers Training- All District Horticulture Officers to be provided training outside the state as per norms of the scheme. Senior Officers of the Department of Horticulture of the state may also update their knowledge through such trainings. Director (Horticulture) may include this in the action plans.

District Horticulture Officer/District Agriculture Officer would maintain an account exclusively for Technology Mission details of which must be submitted to the Director of Horticulture. DHOs/ DAOs to maintain cash registers and complete details of beneficiaries including their postal addresses, funds availed by them and the purpose. The information to be made available to Director (Horticulture) every month who would also keep a record of state level. DHO Meetings, every month, will be held regularly by Director (Horticulture)/ Secretary(Horticulture) to review the progress of the Mission. Director/ Secretary (Horticulture) would visit DHO and Centre of Excellence regularly and send a report to T M Cell at New Delhi. Every district may have computer facilities as NIC is implementing the component. Each DHO may organize an awareness campaign in his District in a year.

Funds may be availed under MM-II technical support component. A report on this including photographs and press coverage must be made available to T M Cell by the Director Horticulture of the state. Mode of payment to the beneficiaries would be by cheques and payments made in 3-4 installments with a review of progress made by the beneficiary in implementing the programme. If progress is not satisfactory no further funds should be released and earlier funds recovered immediately under intimation to T M Cell.

13.14. BEE KEEPING : About 85% crop plants are cross pollinated as they need to receive pollen from other plants of the same species with the help of external agents. One of the most important such external agent is the honey bees. A few colonies of honey bees when placed in the field, when crop is in flowering stage, press into service several thousand foragers for pollination. The abundance of pollinators help in early setting of seeds resulting in early and more uniform crop yield. Scientific studies have established that increase in yields of various crops due to the pollination by honey bee ranges from 20% to 100%. On the basis of published information, 12 crops of economic importance such as almond, apple, coconut, grape, guava, mango, papaya, mustard, sunflower, cotton, etc. are specifically dependent upon or benefit from honey bee pollination.

Honey bees also produce honey, bee wax and royal jelly thus giving additional benefit to farmers. Moreover, honey bees do not limit their pollination services to a single species rather a large number of

agricultural crops are pollinated by them.

The main objectives of this component are:

- i) To promote the role of honey bee as agents of pollination for increasing crop productivity;
- ii) To develop newer strains of bees for evolving disease resistant types as well as for higher production of honey;
- iii) To encourage State/Regional level Associations/Cooperatives/Federations to undertake manufacture of bee-keeping equipments and assist the procurement, storage and marketing of honey.
- iv) To assist in the formation of beekeeping consortium for integrated development of beekeeping in selected regions.
- v) To impart training to unemployed and young entrepreneurs/farmers and SC/ST aspirants in handling and managing of bee colonies;
- vii) To promote awareness and foster growth of bee keeping through print and electronic media, honey festivals, exhibitions and institution of awards at appropriate levels.

Pattern of assistance: The cost of superior quality queens and colonies is high, and therefore to encourage purchase of superior bee colonies support **would be provided @ 50% cost or Rs.800/- per colony** with beehive whichever is less. Similarly standard beehives are prerequisite for the upkeep of bee colonies.

13.15 Entrepreneurial Development of Women farmers : The programme would envisage making women farmers self-reliant by providing them

- equal opportunities, so that they are able to avail the benefits and opportunities of the existing agricultural systems.
- ò Organization / identification of women groups which would act as a network for channelizing the horticultural support.
 - ò Need assessment of women farmers in terms of the horticulture Support such as input support, technological support and extension support etc.,
 - ò Prioritizing the activities of the individual women's groups on the basis of the need assessment.
 - ò Provide adequate organisational and financial support to the women groups to make their "self-help groups".
 - ò Provide technical training in horticulture and allied areas to women farmers.
 - ò Provide training in increased managerial, organizational, entrepreneurial and decision making skills.
 - ò Enable them to develop into viable bodies so that they are able to orchestrate their own activities, resources and group interaction.
- Base line survey to identify the amount and type of the work being contributed by the women in the field of horticulture, their role in decision making process and the problems faced by them in farming. For base line survey the assistance is available is @ Rs. 10000 per district. Rs. 20000 per District for development of curriculum and Rs. 5000 per "self help group of women". Assistance is also available @ of Rs. 10000 per District for refresher training of facilitators.
- Training of farm women for 5 days @ Rs. 1000/ farmer about the production

technology, methods to obtain credit loans for the farming purpose and to understand the marketing techniques of the produce, the opportunities and the directions. Training of the master trainers will train a group of trainers on various disciplines of horticulture / allied fields, credit, banks, input agencies, marketing etc.

13.16 Development of information base through remote sensing: Remote Sensing (RS) and GIS together is able to provide many parameters required for planning and managing horticultural sector in India such as identification of crop, area estimation, condition assessment, separation of areas with diseased plants from areas with healthy ones, etc. It is proposed to use remote sensing for (i) upgradation of data, (ii) Infrastructural planning, (iii) site suitability through training and strengthening of infrastructure.

The main objective of the project is preparation of an Integrated Development Plan for Horticulture. To achieve this objective, the task to be carried out under the project are Identification of Area for Commercial Expansion (i.e. Jhoom Cultivation), prescribe an holistic approach for Infrastructure Development, Generation of Spatial Database for Major Horticulture Crops and Human Resource Development through series of training programmes.

The methodology for carrying of these tasks are, Sites for Horticultural Areas Expansion, Identification of Jhoom Areas, Identification of Other Waste Lands, Water Resource Development, Infrastructure Development of Post Harvest Management and Inventory/ Database for Management of Existing Orchards.

- The work components are:
- * Horticulture crop inventory map
 - * GIS coverage, Distt. Boundary, Transport roads, Towns, Markets, post harvest facilities, weather data
 - * Location/allocation analysis, routing/ buffer analysis, site suitability analysis for different horticulture crops.

Human Resource Development by ISRO

Various modules for Human Resource Development through Trainings have been worked out to suit the objectives of Tech. Mission. ISRO will act as a team of excellence to provide this training and hands on experience to different users through the following training modules.

Module (A):-

Orientation program for field level officials (not exposed to Remote sensing). This will also involve use of interactive training (TDCC) available at NESAC

Module (B):-

Training programme for technical level official (Not exposed to Remote sensing)

Module (C):-

Training programme for block level officials for field data collection:

Module (D):-

Training programme for technical level officials (exposed to remote sensing):

Module (E):-

Educating farmers for implementation.

The funds will be released to ISRO for taking up the Programmes. ISRO

will have to submit detailed proposals every year to T M Cell for their programmes in NE States. Funds will be released to ISRO on the basis of the proposals and utilisation reports. The funds will be released to ISRO through SFAC.

ISRO will submit a quarterly progress report to technology Mission Cell and SFAC alongwith the utilization certificates in GFR-19.

13.17 Tackling of emergent requirements:

It is proposed to provide funds for enabling the state Governments to tackle emergent needs related to attack of pest or diseases or any other matter of emergent nature. The assistance will be provided on the basis of specific proposals approved by state level steering committee. A proposals need to be submitted to T M Cell the concurrence of which would be necessary for availing the funds under this specific requirement. A specific proposal has to be submitted to Technology Mission Cell which will be approved by a Committee constituted under the chairmanship of Special Secretary(A&C).

13.18 Infrastructure support for horticulture:

The proposal is for creation of Technology Mission Cell at Headquarter, Directorate of Mission to be established in North Eastern Region, providing logistic support and IT network in Department of Horticulture in each state, technical support and external evaluation. Directorates of Horticulture will be strengthened. Infrastructure facilities like computers and other equipment's right upto the block level will be provided. These computers will be linked with Implementation Cell of the Directorate of the Mission in the

Region and DAC at Delhi. National Informatics Centre will submit a project proposal for computerization of T M cell and in the states upto block level. The proposal should include provision for training of the staff in the states and technical support. The proposal will be approved by the T M cell and funds will be released through SFAC. NIC will follow the regular procedure for procurement of hardware and software etc. CCEA has approved that staff component for monitoring Cell in Delhi and Directorate of Technology Mission in the North Eastern Region will be met by redeployment of staff. The assistance for infrastructure development at State level will be provided on the basis of specific proposals from concerned State Government approved by state level steering committee. Funds under the component can be availed by state

Govt. after concurrence of T M cell.

- * SFAC will provide technical and logistic support to the Technology Mission Cell at the Headquarters out of the allocations made under infrastructure component.

14. Mini-mission- III

This Mini Mission aims to create infrastructural facilities for post harvest management, marketing and export. For this purpose existing schemes of the NHB, DMI, NCDG, APEDA, NAFED etc either with the existing outlays or with enhanced outlays will be implemented. Considering the gap new components, have been proposed in marketing.

The existing approved schemes of National Horticulture Board (NHB) with additional outlays as required will be implemented to give focus.

14.1 Schemes of National Horticulture Board (NHB)

Scheme-I	Development of Commercial Horticulture through Production And Post-Harvest Management Projects on post harvest management
Scheme-II	Capital Investment Subsidy For Construction/ Expansion/ Modernization of Cold Storages/ Storages of Horticulture Produce. Controlled Atmospheric (CA) storage - Credit linked back - ended capital subsidy @ 33.33% of the project cost of Rs.16.00 crore/ unit Cold Storage Credit linked back-ended subsidy @ 33.33% of the project cost of Rs.2.00 crore/unit

These are proposal based schemes the details of which must be obtained from National Horticulture Board and the proposals must be submitted on the prescribed format of the Board.

14.2 Marketing:

For efficient marketing it is proposed to Strengthen marketing infrastructure including improvement of services in

wholesale markets, development of rural primary markets, development of Apni Mandis, promotion of Agmark in domestic trade by strengthening the State grading laboratories and agricultural marketing information network.

In order to have forward and backward linkages in marketing, which will enhance productivity and quality of produce and improve farmers income a pilot project of Alternate Marketing System is proposed under which marketing infrastructure will be developed in cooperative/private /joint sector with the participation of wholesales, retailers and farmers. It is proposed to provide assistance @ 25% of cost limited to Rs. 60.00 lakhs, for creating such infrastructure by way of credit linked back ended subsidy.

- 14.2.1 The proposals relating to development of whole sale market, Rural Primary Markets, apni mandies and state grading laboratories are required to be submitted in prescribed Performa to Directorate of Marketing Intelligence, Department of Agriculture & Cooperation. The proposals under MM-III for these activities need to have approval of state level steering committee or any other committee constituted by the state in which Director Horticulture of the state is the member of the committee.

Note:

DMI is to have total responsibility for market infrastructure proposals. SFAC would provide all the help to DMI, as requested, for approval of proposals DMI would seek comments of SFAC on each proposal and if

comments of SFAC are not made available to DMI within a time frame of 30 days it would be presumed that SFAC is satisfied with the proposals and have no comments to offer. SFAC is to verify the ground level situation and feasibility and economic viability of the projects and to ensure proper utilization of funds.

Schemes of NCDC to assist cooperative societies for marketing of horticulture products, NCDC has got its own budget to carry out these activities. However, if additional funds are required, NCDC will submit a proposal to DAC.

Assistance under all Schemes of APEDA particularly for freight subsidy and for packaging development could be availed as per the existing guidelines of APEDA schemes.

Market Intervention: National Agriculture Cooperative Marketing Federation (NAFED) and TRIFED will be encouraged to take up market intervention operations in the normal course. In specific cases market intervention schemes operative in the department will be implemented.

The markets which have already been granted central assistance for development under the earlier scheme shall not be eligible until after 10 years of the date of grant already given or in case of change in its category from smaller to larger markets requiring more infrastructure facilities, State Government may send a proposal to DMI for grant of central assistance for such markets. However, while sending such proposals the Nodal authority may

ensure that the infrastructure facilities and amenities which were constructed with the central assistance granted under erstwhile scheme should not be repeated. The proposal for construction of infrastructural facilities only for new items should be proposed.

Mode of release of funds:

State Govt. will submit proposals relating to Post harvest management and commercial horticulture as per the schemes of NHB to MD, NHB. Proposals will be approved by the Project Approval Committee and funds will be released by NHB directly. DAC will release funds to NHB. Similarly proposals relating to NCD, NAFED and APEDA shall be submitted directly to respective organisations who in turn will release the funds. However, NHB, NCD, NAFED, APEDA, etc. will inform DAC and state agencies about the proposals approved and funds released. These agencies would submit regular quarterly physical and financial reports to T M Cell.

Agri Export Zones:

Two Agri-Export Zones would be established in each state; the states are required to identify the export potential of crops and put up the proposal to APEDA for establishment of Agri Export Zone. For infrastructure development such as roads etc. the scheme would integrate programmes of different Ministries/Departments, which have mandate to spend atleast 10% of the allocation in North-Eastern Region. Jammu & Kashmir would integrate two Agri-Export Zones for

apple and walnuts with Horticulture Mission. Agricultural And Processed Food Products Export Development Authority (APEDA) would assist in formulation/preparation of project report/work plan for export.

Details of application format for markets is at **Annexure-II.**

15. Mini-Mission-IV:

This mini-mission will be implemented by Ministry of Food Processing Industries. Programmes which will be taken up by Ministry of Food Processing Industries are (a) promotion of new units (b) upgradation and modernization of existing units (c) Market promotion (d) Research & Development (no funds required) and (e) Human Resource development. These programmes should be credit-linked through Banks/NABARD/IDBI/State Financial Corporations/NERAMAC. In order to bring convergence under Mini Mission-IV, the Ministry of Food Processing Industries would implement its schemes, from 10% allocation of its outlay, for Horticulture Technology Mission programmes in North-Eastern States. In case of additional requirements by MFPI, funds will be provided by the Horticulture Technology Mission. Same pattern of assistance as approved for North Eastern States would be extended to J&K, Himachal Pradesh and Uttaranchal considering special character of the scheme and mission mode approach. The schemes of MFPI would be implemented as credit linked back ended subsidy through financial institutions/scheduled banks.

Name of component	Percent of cost	Rate of assistance	Eligible agencies
1. Promotion of new units	50%	Rs. 4 crore and promoter's share should not be less than 20%.	PSUs, joint /assisted sector/NGOs/ cooperatives/ Pvt. Individuals.
2. Upgradation/expansion of existing units.	50%	50% of capital cost – Max. Rs. 1 crore	-do-
3. Promotional activities for conducting studies, surveys and entrepreneurship development etc.		As per the need. Project based to be approved by Committee.	-do- Assistance should be for a period of two weeks and number of number of trainees should not be less than 15. As per the revised scheme of the MFPI.

For promotional activities pattern of assistance would be in accordance with the plan schemes of MFPI.

Mode of release of funds and submission of proposals :

State Govts. to submit proposals as per their needs on the above components to MFPI. The proposal should have the approval of the State Level Steering Committee of the Mission, in which Nodal Officer of the Technology Mission is represented. The Horticulture /Nodal Officer should be in the know of the things and should have opportunity to bring out any facts, which would indicate the projects should not be approved. After approval of the project by state level committee the Project Approval Committee of MFPI will further approve the projects and recommend release of funds to SFAC.

Application format for MM-IV are at **Annexure-III.**

16. For achieving the effectiveness of the mission, all the links in the chain have to be given attention. Therefore, the components which have not been included in the document but are approved in the department under various schemes will be implemented as per the needs within the overall budgetary allocation of this Technology Mission. States will have to submit proposals for the components which are not included in the document. Components will be sanctioned as per the approved norms with the approval of Horticulture Commissioner. Component wise pattern of assistance approved for the scheme is at Annexure-IV

17. Organizational structure and Implementation: The scheme will be implemented through Small Farmer's Agri-business Consortium (SFAC) except programmes of ICAR, NHB, APEDA and NCDC.

18. Monitoring and Evaluation: The Central Steering Committee headed by Secretary (A&C) will review the progress of the mission at least once in a year. Besides, Steering Committee headed by Special Secretary (A&C) would review progress of mini missions on regular basis. In addition, Steering Committee for each mini mission will review the progress of their respective programmes. State level Steering

Committees under the Chairmanship of Chief Secretary of the state will monitor the progress and approve the work plan and project proposals of the Horticulture Technology Mission Scheme in the respective states. At the end of the plan period external evaluation would be carried out.

Annexures related to Mini Mission -II

COST ESTIMATE FOR NEW MODEL FLORICULTURE CENTRES

S.No.	Item	Cost (Rs. in Lakhs)
1.	Mist chamber/Precooling Chamber with booster pump, Water tank etc.	4.20
2.	Glass house/ poly house,	3.00
3.	Tissue Culture lab.	12.30
4.	Equipment for Training & laboratory	1.40
5.	Jeep with Trailer	3.50
6.	Truck small	5.60
7.	Tools & Implement @	2.50
8.	Furniture & Fixture@	1.40
9.	Xerox Machine	1.40
10.	Typewriter	0.25
11.	Packing material	2.10
12.	Personal Computer with Printer	0.75
13.	Installation of Drip irrigation system(1 ha area)	1.00
14.	Walk in coolers(14.4x9.6x2.3m)with temperature & humidity controls	15.50
15.	Generator	2.10
16.	Miscellaneous	1.50
	Sub Total	58.50

A polyhouse covering an area of 500 sq.m

@ also inclusive of requirements for grading/packing centre.

(B) Recurring Expenditure

1.	Glass wares	1.00
2.	Chemicals	1.00
3.	Fertilizers& pesticides	0.50
4.	Labour wages	2.00
5.	Transport, fuel etc.	1.00
6.	Seeds, plants bulbs etc.	4.00
7.	Office Contingency	1.00
8.	Miscellaneous	1.00
	SUB TOTAL	11.50
	GRAND TOTAL	70.00

INTEGRATED UNIT FOR MUSHROOM DEVELOPMENT COMPONENT WISE COSTS

(A) COMPOSTING UNIT

I)	CONSTRUCTION	Rs.
1)	Covered outdoor composting Platform with sides open, cemented floor laid with perforated pipes for Under stack aeration -60'x40x20 (h) Rs. 150.00/Ft ²	3,60,000.00
2)	Guddy Pit - 6'x6'x 6' @ Rs.100/- Per sq.ft	3,600.00
3)	Compost bulk pasteurization chamber 40'x10'x13' (h) @ Rs, 250/-Per sq.ft.	1,00,000.00
4)	Underground blower room -10x8x8(h) @ Rs.200/- Per sq. ft.	16,000.00
5)	Glazed spawning area-20'x15'x8x (h) @Rs.200/- per sq.ft	60,000.00
6)	Casing pasteurization channel -2 26'x10'x8' (depth) @ Rs. 50/- per sq.ft	50,000.00
7)	Casing washing channel-20'x4'x3 (depth) @Rs.50/- per sq ft	4,000.00
8)	One boiler room/ one generator room -2 10'x10'x12' (h) each @ Rs. 150/- per sq.ft	30,000.00
9)	Insulation of composting/casing sq. pasteurization chambers, 4040 sq. ft. @ RS.20.00 per sq, ft. including material/labour/ till finish.	80,800.00 7,04,400. 00
II)	INSTALLATION AND EQUIPMENTS	
1)	Dewatering pump with hose (2 HP)for guddy pit	5,000.00
2)	Blower for compost yard for understack aeration (2 HP)	5,000.00
3)	Blower for compost bulk chamber with 7.5 HP motor (1440 rpm motor, blower air displacement cap of 4500 m ³ air/hour, pressure at entry point 80-100mm water level)	30,000.00
4)	Blower for casing chamber (with motor of 2HP of 2HP cap., blower air displacement cap. of 1000 m ³ air/hr; pressure 50 mm water level)	15,000.00
5)	Insulated doors for compost bulk chamber (8'x8'x3'- thick insulated)x1	30,000.00
6)	Steel grating for the bulk chamber 40'x10' base dimension	30,000.00
7)	Ducting in compost + casing chamber-aluminum, with luvors, dampers etc.	50,000.00
8)	Remote thermometer with-6 sensors and digital display x(2 Nos) (one for bulk chamber, one for casing chamber)	50,000.00
9)	Front loading cater pillar tractor for pre-wetting turning	4,00,000.00

10)	Truck for delivery of compost to farmers doorstep, hauling of raw materials.	6,00,000.00
11)	Stack making set of boards iron/on wheels	15,000.00
12)	Forks, showels, other implements	5,000.00
13)	Electric fittings/water pipe laying/ sewer pipe laying in entire composting unit.	50,000.00
14)	Boiler, with steam line to bulk chamber/casing chamber (Boiler 300 kg cap/hr semi automatic ,diesel/ coal fired/installed.	80,000.00
15)	Diesesl generator 7.5 K W (for bulk chamber-standby with change over switch/wiring.	50,000.00
16)	Underground water tank 50000 lit. cap. With motor (5x5x2m)	50,000.00
17)	Nitrogen analysis (Microkjeldal) equipment	5,000.00
18)	PH meter(portable/battery operated	5,000.00
19)	Weighing balance (Commercial) (1-200 kg cap)	20,000.00
		14,95,000.00
	Grand Total for 'A'	21,99,400.00

(B) SPAWN UNIT

I)	CONSTRUCTION	Rs.
1)	Built up area of spawn laboratory 60x30x12 (h) @ Rs. 300.00per ft.	5,40,000.00
2)	Insulation of incubation room/cold room in the lab. (20'20'12') &(10'x10x12')-186sq.ft @ Rs.20.00 per sq.ft. including material/labour/finish	37,200.00
3)	Electric fittings/water pipe connections/discharge pipeline	50,000.00
II)	INSTALLZATION AND EQUIPMENTS	
1)	Grain washing tanks x (2)/ cement with tap & discharge	5,000.00
2)	Boiling kettle x (1)/200 lit.cap.	30,000.00
3)	Autoclave horizontal 5' long x 4' dia, steam operateds on boiler x-(1)	80,000.00
4)	Autoclasve electrical 40"hx 36"dia, 2 elements, steel inner x-(1)	50,000.00
5)	Seives-aluminium, 6'x4'x6'(depth) x-(2)	5,000.00
6)	Aluminium toppes/SS tables 6'x3'x3 12/2(H)-x 6 Nos	20,000.00
7)	Racks iron 6'x3'x10' (h) x 10-Nos. for incubation room/inoculation room	30,000.00
8)	Laminar flow 4', with periplex cover & UV light/manometer.	50,000.00
9)	A/C split type for incubation room (ambient to 24C) and colds room (ambient to 4C), 5TR @ Rs. 40,000.00 per TR installed	2,00,000.00
10)	BOD incubator - one	50,000.00
11)	Refrigerator -285 lit. one	20,000.00
12)	Oven -3'x3'x3 - one (with aluminium interior)	5,000.00

13)	weighing balance - top pan (0-10 kg cap)	5,000.00
14)	Hot plate, gas connection with stove, heater, SS boiling pans -(2 lit.cap.), Inoculation needles, spatula, etc. /all for media preparation	10,000.00
	Total	5,58,000.00
	Grand Total of "B"	12,35,000.00

C) TRAINING UNIT

I)	Construction	
1)	one lecture hall 30'x20'x10'(h) with one W.C. @ Rs.300/- per m2	1,80,000.00
2)	Electric fitting of the lecture hall	20,000.00
	Total	2,00,000.00
II)	Installation/equipments :	
1)	Chairs (100) @ Rs. 500/- per chair (unbreakable hardened plastic	50,000.00
2)	Audio system - Microphones(2) stereo speakers (2), amplifier, voltage Stabilizer, etc.	20,000.00
3)	Slide projector -one , with screen	20,000.00
4)	Overhead projector -one	10,000.00
5)	Trolley for slide projects/over head	5,000.00
6)	Switchboard with 100 m cable	2,000.00
7)	Curtains for the lecture hall (for preventing sound echo)	10,000.00
8)	Matting for the lecture hall	10,000.00
9)	Fans for the lecture hall(4)	5,000.00
10)	Exhaust fan for the lecture hall (2)	1,000.00
	Total :	1,33,000.00
	Grand Total of 'C'	3,33,000.00

(D) POST HARVEST HANDLING UNIT

I)	Construction	
1)	Canning unit-60'x40'x14' (h)with double doors on entry, fly net on windows, electric fittings, water pipe connections, sewerage discharge, etc. -@ Rs. 350/- per ft 2	8,40,000.00
II)	INSTALLATIONS AND EQUIPMENTS	
1)	complete canning line manual with cap of 2 tons per day (8 hours working)	377600.00
2)	Polythene sealing machine -(2) (electric)	5000.00
3)	Plastic crates - (2'x1x1)- (20)	10,000.00
	TOTAL	103500.00
	Total Cost of Integrated Mushroom Unit.	Rs. 50,000,00.00

COST ESTIMATE OF SMALL NURSERY

NO.	ITEM	COST (RS. IN LAKHS)
1.	Polygreen House (250 sq. mtrs.)	1.50
2.	Minor Equipment	0.25
3.	Furniture	0.10
4.	Water-Pump & Overhead Tank	0.30
5.	Planting Material, Seeds/Mother plants etc.	0.40
6.	Irrigation System	0.20
7.	Tools & Implements	0.10
8.	Contingencies	0.15
	Total	3.00

COST ESTIMATE OF INTEGRATED MULTI-CROP NURSERY

NO.	COMPONENT	AMOUNT (RS. IN LAKHS)
1.	Land development, fencing, water resources (excluding land cost)	2.00
2.	Structure for servicing	2.00
3.	Green House	3.00
4.	Overhead tank and irrigation system	3.00
5.	Cost of new varieties of nucleus planting material	2.00
6.	Nursery equipment (power tiller, manure mixing machine etc.)	3.00
7.	Operational expenses	3.00
	TOTAL	18.0

BIOLOGICAL CONTROL LABORATORY

The expenditure of Rs.80 lakh per laboratory will be towards construction of building, procurement of equipment and purchase of vehicles and the financial allocation pattern will be as under:-

a)	Construction of laboratory building as per details	Rs.55.00 lakh
b)	Procurement of equipment as per list.	Rs.20.00 lakh
c)	Procurement of Vehicles	Rs. 5.00 lakh

Details of accommodation for the State Bio-Control Laboratory

S. No.	Room be utilized for	No.	Size(m)	Area(sq.m.)
1.	Corcyra Mass breeding room	4	7*5	140
2.	Corcyra egg laying room	1	7*5	35
3.	Heliiothis mass-breeding room	1	7*5	35
4.	Spodoptera mass-breeding room	1	7*5	35
5.	Egg parasites mass-breeding room	1	7*5	35
6.	NPV mass breeding room	1	7*5	35
7.	Trichogramma mass multiplication room	1	7*5	35
8.	Chrysopa predator mass-breeding room	1	7*5	35
9.	Field collected pest material rearing room	1	7*5	35
10.	Deputy Director Room	1	5*4	20
11.	Technical Staff room	1	7*5	35
12.	Office room	1	7*5	35
13.	Store Room	1	7*5	35
14.	Garage	1	5*4	20
15.	W. C. (Men)	1	5*4	20
16.	W. C. (Women)	1	5*4	20
17.	Generator room	1	7*5	35
		20		640(Carpet area)

The building could be double storeyed or single storeyed depending on available land on a plinth area of 500 sq.m. A gallery of 2m, width land 36m. long is required since the rooms will be constructed to have natural light which require a provision of central gallery and water channel; around building to avoid entry of ants. The entrance gate of the building should have automatic double doors with ante

room space like glasshouse, windows are to be provided with airtight glass pans and stainless steel 100 mesh shutters. Laboratory rooms should have built in provision for laboratory tables facing window with sinks.

Note: Depending on the local cost of construction, size of building may be reduced suitably.

Equipment and Vehicle required for the setting up of State Bio-Control Laboratory

S. No.	Item	No	.Cost (in Rs./Unit)	Total amount (in Rs.)
A. Equipments:				
1.	Heat Converter	20	2,000	40,000
2.	Air Conditioner with cooling and heating arrangement with 4 KVA Stabilizer	8	50,000	4,00,000
3.	Refrigerator 300 Lit. capacity with 1 KVA Stabilizer	2	20,000	40,000
4.	Hot Air Oven	2	40,000	80,000
5.	BOD Incubator with temp. humidity and photo period provision with 1 KVA stabilizer	2	80,000	1,60,000
6.	Centrifuge	2	8,000	16,000
7.	Laminar Flow Station	1	24,000	24,000
8.	Autoclave vertical	1	20,000	20,000
9.	Semi automatic Corcyra rearing system	100	5,000	5,00,000
10.	Steel racks (7*3*18) (with 6 compartment)	20	1,000	20,000
11.	Chrysopa cages	20	1,000	20,000
12.	Laboratory tables	5	7,000	35,000
13.	Laboratory stool	20	250	5,000
14.	Hygrometer (Dail type)	10	400	4,000
15.	Thermometer (Dail type)	10	400	4,000
16.	Mixture -cum-grinder	2	2,000	4,000
17.	Corcyra egg laying cages	50	200	1,0000
18.	UV Chamber with UV tube light	2	1,500	3,000
19.	Exhaust Fan	10	1,000	10,000
20.	Vaccum cleaner	2	4,000	8,000
21.	Water Distillation unit	1	2,000	2,000
22.	Microscope (Research with accessories)	1	1,00,000	1,00,000
23.	Stereo Binocular microscopic	1	50,000	50,000
24.	Top Loading electronic balance	1	35,000	35,000
25.	Glasswares (Petri dishes, jars, flask etc.)	-	-	60,000
26.	Miscellaneous lab. Items	-	-	3,50,000
	Total			20,00,000
B. Vehicle:				
27.	Vehicle diesel Jeep with trailer	1	5,00,000	5,00,000
Total	(A+B)			25,00,000

The Bio-Control Laboratory must be established only under the close observation and technical support from ICAR.

ANNEXURES RELATING TO Mini Mission -III

MARKETING:

The identified items of infrastructure for Markets

Wholesale Markets	Rural Primary Markets/Apni Mandies.
1. Office Building.	1. Office building
2. Auction Platforms.	2. Auction/drying platforms.
3. Drying platforms.	3. Water supply & sanitary arrangements.
4. Godowns.	4. Grading and weighing equipment and
5. Water supply and sanitary arrangement	5. Boundary wall.
6. Grading and weighing equipments.	
7. Cattle parking sheds.	
8. Veterinary Dispensary.	
9. Internal roads.	
10. Garbage disposal arrangements.	
11. Modernisation/Mechanisation devices, if any ; and	
12. Boundary wall.	

i) The funds will be released in two equal installments. The first installment would be released as soon as the project proposal is sanctioned. The second installment would be released after the implementing authority submits the utilisation certificate of 1st installment of central assistance.

ii) The implementing agencies will prepare the projects in prescribed proforma as given in Annexure I & II and submit the same to the DMI through State Steering Committee.

iii) The utilisation certificates of 1st and 2nd installment of central assistance shall be submitted in the prescribed proforma given at Annexure III and IV as applicable within a period of one year from the date of sanction of grant.

The final utilisation certificate would indicate utilisation of total amount of central assistance granted i.e. 1st and 2nd instalment both.

iv) The State authorities will have to furnish quarterly progress reports of utilisation of central assistance.

(III) GRANT OF CENTRAL ASSISTANCE FOR STRENGTHENING OF STATE GRADING LABORATORIES (SGLs)

i) Central assistance for strengthening of SGLs will be 100% of the project cost subject to a maximum of Rs. 2.5 lakhs. It will be confined to equipment/instruments identified for the purpose.

ii) The identified items of equipment/instrument to be purchased out of central grants are given below :-

1.	Fridge	11. Tintometer
2.	Muffle Furnace	12. U.V.Spectrophotometer
3.	Copper Water Bath	13. TLC set
4.	Hot Air Oven	14. U V Lamp
5.	Water Distillation Apparatus	15. Melting Point Apparatus
6.	Suction pump	16. Top Loading Balance
7.	Microscope	17. Vacuum Distillation Set
8.	Electronic moisture meter	18. Flash Point Apparatus
9.	Electrical balance	19. RM/PV Set(2 sets)
10.	Butyro refractor meter	20. Any other item (Pl.Specify)

- iii) The utilisation certificates will be submitted in the prescribed proforma given in Annexure VI, within one year of the sanction of central assistance.
- iv) The State Governments will have to furnish quarterly progress reports of utilisation of central assistance.

WHOLESALE MARKETS

1. Name of the market :
2. Ownership of market :
3. District :
4. Date of regulation :
5. Whether the market has received financial assistance for development under any other central sector programme. If so, full particulars of the same. :
6. Total arrivals of agricultural produce in the market and their values during the last five years :-

Sl. No.	Year	Total arrivals in metric tonnes	Total Value Rs./lakhs	Maximum daily arrivals (MT)
1.				
2.				
3.				
4.				
5.				

(The actual arrival figures furnished should be based on the records maintained in the market. For maximum daily arrivals on average of the 'peak fortnight' may be given).

7. Anticipated total arrivals of agricultural commodities in the market for the next ten years.

Sl. No.	Year	Anticipated annual Arrivals in metric tonnes	Value Rs./Lakhs	Projected Maximum daily arrivals(MT)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Note :- (The anticipated annual arrivals are to be estimated realistically)

8. Present position about land :

Land required for development Of the market (hectares)	land in actual possession of the market (hectares)

9. Details of infrastructural facilities and amenities presently available in the market:

SL.NO.	Name of the facilities	No./Area whether constructed with Central Assistance or not (Y/N)
1.		
2.		
3.		
4.		
5.		

10. Details of the project proposed to be provided : (Rs./lakhs)

SL.NO	Name of the facility	No./Area and capacity	Cost per unit	Total cost
1.				
2.				
3.				
4.				
5.				

11. Details of identified items of infrastructure proposed to be provided with central assistance:

(Amount Rs. In lakhs)

Sl.NO.	Name of the facility	No. area and capacity	Cost per unit	Total cost
1.	Office building			
2.	Auction platforms			
3.	Drying platforms			
4.	Godowns			

5.	Water supply and sanitary arrangements			
6.	Grading and weighing Equipments.			
7.	Cattle parking sheds			
8.	Veterinary Dispensary			
9.	Internal roads			
10.	Garbage disposal arrangements			
11.	Modernisation/ Mechanisation devices			
12.	Boundary wall			
	Total cost of the project :			

12. Sources of financing the project :

(Rs. In Lakhs)

Total cost of The project	Central assistance	Own funds	Grant or loan from state Govt./State Marketing Board/Banks, etc.
---------------------------	--------------------	-----------	--

13. Statement of annual income and expenditure of the Market Committee for the last Five years:-.....

SL. No	Year	Open ing Balance	Market fee	License fee	Other	Total income	Estab- lish- ment/ Main- tena- nce	Any other expen- diture inclu- ding Repay- ment of loan	Total	Closing balance
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										
4										
5										

14. Anticipated income and expenditure figures for the next 10 years:-

SL. No	Year	Open ing Balance	Market fee	License fee	Other	Total income	Estab-lish ment/ Main-tena- nce	Any other expen- diture inclu- ding Repay- ment of loan	Total	Closing balance
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Date :

Place :

Signature
Chairman Agricultural Produce Market
Committee/Local body
Director of Agricultural Marketing/
State Agricultural Marketing Board

Note:-

- I) The scale of CA would be Rs.20 lakhs for the first 5000 MTs plus Rs.10 lakhs for each additional 2000 MTs or part there of annual arrivals OR 50% of the project cost, subject to a maximum of Rs.50 lakhs, whichever is less.
- II) A lay out plan of the market indicating existing and proposed infrastructure may be enclosed.
- III) Commodity-wise break-up of annual arrivals (last 5 years and anticipated ten years).
- IV) Copy of the utilization certificate of the market which has already received C.A. under the erstwhile scheme of C.A. for which UC has been furnished.

RURAL PRIMARY MARKETS APNI MANDIES

1. Name of the Rural Primary Market/Apni Mandi :
2. Ownership of Market :
3. Location :
- a) District :
- b) Tehsil :
4.
 - a) Whether the market is located in hilly area.
 - b) Whether the market has availed financial Assistance for development from Central Sector Projects, full details of assistance Received.
 - c) Frequency at which the market is operating i.e. daily, bi-weekly or weekly, etc. If seasonal, then give number of days the market function during the season.
 - d)
 - a) whether the market is regulated.
 - b) If so, the name of the Market Committee under which it is functioning.
 - c) If not regulated, the name of the local body managing it.
 - e) Whether the market is served by roads linking with The regulated market.
8. Present annual arrivals (Last financial year)

SL. NO	Name of the Important Commodity	Quantity in metric tonnes	Percentage of produce brought by farmers	Percentage of produce brought by merchants
1.				
2.				
3.				
4.				
5.	Others			
Total :				

9. Present maximum daily arrivals (total arrivals of all commodities)
An average of the "peak fortnight"
10. Area of land in possession of the market (in hectares)

11. Details of infrastructural facilities and amenities presently available in the market.

Sl. No	Name of the facilities	No./Area and capacity	whether constructed with central assistance or not(Y/N)
1.			
2.			
3.			
4.			

12. Details of the project proposed to be provided (Rs./Lakhs)

SL. No.	Name of the Facility	No./Area and capacity	Cost per unit	Total cost
1.				
2.				
3.				
4.				
5.				
6.				

13. Details of basic infrastructural facilities proposed to be provided with Central Assistance.

SL. No.	Name of the Facility	No./Area and capacity	Cost per unit	Total cost
1.	Office-cum-Godown			
2.	Auction/Drying platform			
3.	Water & Sanitary Arrangements			
4.	Grading & weighing Equipments			
5.	Boundary wall Total cost of the project			

14. Sources of financing the project.

Total cost	Central assistance	If additional funds are required over and above of Central Assistance, the sources from which these would be met i.e. own funds, State marketing Board, Bank, Loan, etc .May be indicated.
1	2	3

Note:- Central assistance will be in the shape of grant-in-aid of Rs.7.50 lakhs or 50% of the Project cost whichever is less.

15. Financial position of the Market Committee under which the rural primary market is functioning or to which it will be linked.

Last financial year			(Rs.in lakhs)		
Year	Opening Balance	Income during the Year	Total	Expenditure during the Year	Closing balance (Surplus or deficit)
1	2	3	4	5	6

16. Rate of market fee levied, if any.

Signature

Chairman Agricultural Produce Market

Committee/local body

Date:

Place:

Director of Agril. Marketing/State Marketing Board.

Note:-

- i) The scale of the central assistance would be Rs. 7.50 lakhs or 50% of the project cost whichever is less.
- ii) A lay out plan of the market according to the scale indicating therein in the facilities Already available and proposed to be provided in the market may be enclosed.
- iii) Copy of the UC of the market which has already received Central Assistance under the erstwhile scheme of CA for which UC has been furnished.

UTILISATION CERTIFICATE

Certified that an amount of Rs. (Rupeesonly) received from the Government of India as the first/second instalment of central assistance for the development ofMarket vide Government of India. Ministry of Agriculture (Department of Agriculture & Cooperation) letter No..... dated has been fully utilised on the Construction/development of the following identified items:-

Sl.NO	Identified Items	Stage of	Total amount spent so far on Construction the items mentioned under Col.2.
1	2	3	4
1.			
2.			
3.			
4.			

Signature

Chairman/Secretary of the Agricultural Marketing Board

STRENGTHENING OF STATE GRADING LABORATORIES (SGLS)

1.	Complete address of the laboratory	:
2.	Own building or rented	:
3.	Date of establishment of SGL	:
4.	Covered area of the laboratory	:
5.	Jurisdiction of the Laboratory	:
6.	Sanctioned manpower strength with designation of the laboratory	
7.	Manpower with designation Available in the laboratory	:
8.	Commodities for which SGL is approved By DMI.	:
9.	Commodities, if any, for which SGL Intends to seek approval.	:
10.	Details of Chemists approved by DMI	:
11.	Number of authorised packers attached with the SGI, for grading (commodity wise break-up)	Ground spices Honey Veg. Oil Ghee
12.	Quantity graded by the authorised packers attached with SGL in last 3 years (Commodity wise, year wise break-up)	Ground Spices Honey Veg Oil Ghee
13.	No .of samples analysed in the SGL (commodity wise break-up)	Grand Spices Honey Veg. Oil Ghee. 1999-00 2000-2001 2001-2002
14.	List of equipment/instruments available in the SGL(Glassware and chemicals are to be excluded)	Grand Spices Honey Veg. Oil Ghee. 1999-00 2000-01 2001-02
15.	Names of identified equipment/Instrument with cost for which Central assistance is sought. (List of identified equipment/Instruments is given below). 1. Fridge 2. Muffle Furnace 3. Copper water bath 4. Air Oven 5. Water distillation apparatus 6. Suction pump 7. Microscope 8. Electronic moisture meter 9. Electrical balance	:

	10. Butyro refractor meter 11. Tintometer 12. U. V .Spectrophotometer 13. T. L. C .Set 14. U. V .Lamp 15. Melting Point apparatus 16. Top Loading balance 17. Vaccum distillation set 18. Flash point apparatus 19. RM/PV set (2 sets) 20. Any other item (please specify)	
--	---	--

UTILISATION CERTIFICATE FOR SGLSS

Certified that an amount of Rs.(Rupeesonly) received from the Govt .of India as central assistance for the strengthening of SGL,.....vide Ministry of Agriculture, Deptt. Of Agriculture & Cooperation, Directorate of Marketing & Inspection (DMI) letter NO..... dated.....has been fully Utilized on the strengthening of SGI, by purchasing following identified items:-

Sl.No	Name of identified item	Cost
1.		
2.		
3.		
4.		
5.		
Total:		

Date :
Place :

Signature of I/C of the SGL
Director of Agri, Marketing

Annexure related to Mini Mission -IV

The individual proposal would merit consideration only if those are accompanied with the following documents (whenever applicable):

1. Certificate of incorporation/registration of the organization
2. Memorandum and Articles of Association
3. Bye Laws of the society
4. Annual Reports/Audited Statement of Accounts of last three years
5. Detailed Project Report
6. Appraisal Report
7. Sanction letter for term loan/working capital from banks/financial institutions
8. Bio-data / background of the office bearers/promoters of the organisation
9. Information whether funding has been received/applied for from any other Government Agency
10. In case of FPTCs, copy of the rent agreement and letter from civic authorities about availability of water,power and drainage system.

All applications may be sent to the following address:

Ministry of Food processing Industries
Panchsheel Bhawan,
August Kranti Marg,
New Delhi-110049.
Tel: 011-6492216/6492174/6493227
Fax: 011-6493228/6493012
E-mail: mofpi@hub.nic.in
Web site: <http://WWW.nic.in/mofpi>

APPLICATION FORM FOR SETTING UP INFRASTRUCTURAL FACILITIES & MANUFACTURING UNITS

A. Promoter

1. Name & Address (Telephone/ Fax)
2. Background/Experience
3. Financial Status (Bankers Name, if any)
4. Existing Industry(if any)

B. Project Description

1. Name of project
2. Location/Area
3. Products/by-products (their specification & use)
4. Process (with flow chart)
5. Technology (source: indigenous/imported)
6. Capacity of Plant/Manufacturing unit (per day/per year)

C. Project Cost

1. Capital Investment(Fixed Capital)
 - (a) Land Area Cost
 - (b) Building
 - (c) Technical civil works
2. Plant & Machinery (Capacity/Specification/Cost)
3. Imported Machines (Capacity/Specification/Cost)
4. Pre-operative expenses
5. Working Capital
6. Raw Material/Packaging (Source/Quantity/Cost)
7. Labour (Quantity/Cost)
8. Effluent disposal (Method/Machinery/Cost)
9. Abstracts of Project Cost

Item	Cost
(a)	
(b)	
etc.	
Total	

D. Finance

1. Means of Financing
 - (a) Equity (Promoters/Foreign/Other)
 - (b) Loan (Term/Working Capital)
 - (c) Subsidy
 - (d) Fund requirement from Ministry (MFPI)

2. Financial Benchmarks
 - (a) Cash Flow
 - (b) Break Even Point
 - (c) Internal Rate of Return
 - (d) Debt Equity Ratio
 - (e) Debt Service Coverage Ratio

E. Marketing

- (a) Existing Market
- (b) Future Demand
- (c) Marketing Strategy

F. Implementation Schedule

Items of work	Date of implementation
(Bar charts/Milestone charts may be enclosed)	

Place :

Date :

Signature

APPLICATION FORM FOR R&D PROJECTS

1. Name and address of promoter.
2. Name of the Process and Objectives.
3.
 - (a) Product
 - (b) Co-products & by-products, id any.
4. Uses of the products and by-products
5.
 - (a) Present consumption pattern
 - (b) How is the demand being met?
 - (i) Indigenous production
 - (ii) Imports
 - (c) Estimated future demand
 - (d) Present market price
6. Process
 - (a) Detailed description of the process
 - (b) Flow sheet
7. Laboratory work
 - (a) Scale of investigation
 - (b) Quantity of product to be prepared
 - (c) Data of laboratory investigation
 - (d) Details of the data to be collected
8. Any work to be done on pilot plant?
If yes:
 - (a) Capacity of the pilot plant
 - (b) Duration of pilot plant investigation
9. Quality of products
 - (a) Specifications of the product, Indian Standards or others
 - (b) Have the products been tested to conform to the specifications?
 - (c) Consumer acceptability report on the products.

10. Raw Materials

- (a) Specifications of raw materials
- (b) Then availability
 - (i) Indigenous
 - (ii) Imported

1. Institutes for investigation

2. Professional details of R&D personnel

3. Implementation schedule: Bar Chart/Milestone Chart.

4. Monitoring mechanism

5. Quality testing plans for new products (whether approvals of relevant authorities obtained)

6. Effluents' treatment

7. Whether Pilot Plant will be needed to commercialize the project.

8. Details of project Cost.

1. Cost of land & Building

2. Cost of Capital Goods

3. Cost o Raw Materials

4. Salaries and wages for personnel

5. Contingencies

6. Any other

9. Means of financing

10. Fund requirement from MFPI

11. Cash Flow for duration of Project

12. Any other details/Remarks

Place :

Date :

(Signature)

- NB :**
- I) We appreciate that data on all points may not be available or available to the required extent.
 - II) Please provide as detailed an answer as possible. This will facilitate quicker decisions.

APPLICATION FORM FOR FOOD PROCESSING & TRAINING CENTRES

A : **Organisation**

1. Organiser/Promoter (Name/Address/Telephone,Fax)
2. Type of Organisation (NGO/Cooperative/Institution/Govt. Body etc.)
3. Objectives
4. Background
5. Experience (Details of development projects implemented)
6. Financial status

B : **Project Details (proposed)**

1. Production activities (Single line/Multi line)
2. Location/Accommodation (Indicate area of accommodation available, whether owned or on rent)
3. Infrastructural facilities: (Availability of water,power, drainage etc.)
4. Cost of Plant & Machinery (Itemwise details)
5. Cost/Quantity of raw materials (preservative/packaging etc.)
6. Cost of training and other recurring costs
7. Total Project Cost
8. Meand of financing (both non-recurring and recurring)
9. Implementation schedule

C : **Training**

1. Availability of Trainers (List of names and qualification)
2. Training of trainers proposed (Indicate candidate/institutions)
3. Annual training schedule (Number of batches/Persons per batch)
4. Training syllabus (To be based on Ministry's guidelines)

D : **Marketing (Post Production)**

1. (Tie up/Buy-back arrangements with marketing agencies/departmental stores/ Cooperatives)

Place :

Date :

(Signature)

Component- wise Pattern of assistance approved for the scheme

MM-I

- | | |
|--|--|
| 1. Seed and planting material(Supply of nucleus/basic seed and planting material of Horticulture crops) | 3. On farm water management: 50% of the cost limited to Rs 28,500/- ha for drip irrigation and Rs. 15,000/- ha for sprinkler irrigation. |
| 2. Technology standardization (Standardization of production and protection technologies in fruit, vegetable, spices and plantation crops , development of organic farming practices and eco- friendly integrated pest and disease management) | 4. Production of planting material Integrated multicrop nursery,

Nursery - 50 % of the cost limited to Rs. 8.00 lakhs for big nursery and Rs. 3.00 lakh for small nursery in private and 100% cost limited to Rs. 18.00 lakh in public sector for big nursery and Rs. 3.00 lakh for small nursery. Progeny and herbal gardens Rs. 3.00 lakh for public sector and Rs. 1.50 lakh for private sector. |
| 3. Technology refinement (Technology refinement and imparting training through on farm trials on farmers fields and training to extension functionaries.) | |

MM-II

a. Area expansion

- | | |
|---|--|
| Fruits, vegetables including root & tuber crops, spices, cashewnut and medicinal plants @ 50% of the cost limited to RS. 13,000/- per ha. The states would provide the beneficiaries, the actual cost (50%). In case of vegetables the cost (50%) would be much less. Aromatic plants @ 50% of the cost limited to Rs. 5,000/- per ha. Floriculture @ 50% of the cost limited to Rs. 13,000/- per unit of 0.2 ha. Modal Floriculture Centre @ Rs 70.00 lakhs per centre. Integrated mushroom unit @ Rs. 50.00 lakhs per centre. | Tissue culture- 50% of the cost limited to Rs.10.00 lakhs for Private/NGO and100% of the cost limited to Rs. 21.00 lakhs Public |
| 2. Creation of Water Sources: Community Tanks- Rs. 10.00 lakhs/ tank @ Rs. 1.00 lakh per ha. Tubewells -@ 50% of cost limited to | 5. Transfer of technology Through training front line demonstration , publicity and training of trainers :

Farmers Training-Rs. 1500/ farmer for 7 days;

Training outside the state - Rs.2500/ farmer

Training of trainers -Actual cost limited to Rs. 50,000 per trainee

Supervisor Level Training centre - Supervisory-Rs.20.00 lakhs

Gardener- Rs. 2.0 Lakhs |
| | 6. Organic farming

● Existing schemes of fertilizer Division for Bio fertilizer production/promotion. |

- Earthworm multiplication farm-Rs. 30,000 per unit;
 - Incentive for adopting organic farming-Rs.10000/ ha.
 - Assistance for obtaining certification-90% of the cost limited to Rs. 5 lakhs per group of farmers
7. Promotion and Popularization of agriculture equipments
 Training to farmers - Rs.1,000/ farmer; Assistance for purchase of equipments limited to Rs. 1500/- for manually operated, Rs. 5,000 for power operated, Rs. 45,000 for power tiller and Rs. 9,000 for diesel engine.
 8. Integrated Pest management
 Setting up of Bio-control Labs. @Rs.80.00 lakhs per Lab in public sector. Financial assistance of Rs.1000/ha, for adoption of IPM (use of biopesticides, pheromones, etc.) Assistance for forewarning units @ Rs.4.00 lakhs per unit.
 9. Plant health clinic: Rs. 20.00 lakhs for Govt/ PSU and Rs. 5.00 lakhs for private sector
 10. Leaf analysis laboratory: Rs. 20.00 lakhs for Govt/ PSU and Rs. 5.00 lakhs for Private sector.
 11. Women development : 100% Govt. assistance as per the approved scheme of DAC
 - Women in Agriculture for North-eastern States”.
 12. Remote sensing : Project based, as per requirement
 13. Emergent requirement : Project based, as per the requirement

MM-III

1. Post harvest management (NHB)

- a. Capital investment subsidy for cold storage - Back ended subsidy @ 33.33% with a maximum limit of Rs. 66.66 lakhs, project cost being Rs.2 crore.
- b. Controlled Atmospheric (CA) storage - Credit linked back - ended capital subsidy @ 33.33% of the project cost of Rs.16.00 crore/ unit.

Cold Storage- Credit linked back-ended subsidy @ 33.33% of the project cost of Rs.2.00 crore/unit

2. Marketing (Directorate of Marketing and inspection)

- a. Wholesale market @ 33.33% of the project cost of Rs. 100.00 crores
- b. Rural primary market @50% of project cost with a maximum limit of Rs. 7.50 lakhs
- c. Apni mandi's 50% of project cost with a maximum limit of Rs. 7.50 lakhs
- d. State grading laboratories @ 100% of project cost with a maximum limit of Rs. 2.50 lakhs

MM-IV

Processing- MFPI

- a. Promotion of new unit -Credit linked back ended capital investment assistance of - 50% of cost with maximum limit of Rs. 4.00 crores.
- b. Upgradation and modernization of existing units back ended capital investment subsidy- 50% of capital cost with maximum limit of one Crore
- c. Promotional activities - as per MFPI pattern.



MINISTRY OF AGRICULTURE
Deptt. of Agriculture and Cooperation
Government of India

For detailed information Contact :

Dr. M. L. Choudhary

Horticulture Commissioner

Department of Agriculture & Cooperation
Ministry of Agriculture, Government of India
Room No. 238, Krishi Bhavan, New Delhi 110 001
Ph. 011-23381012 Fax : 011-23384978

Smt. Jayshree Ardey

Additional Commissioner (Hort.)

Department of Agriculture & Cooperation
Ministry of Agriculture, Government of India
Room No. 103, B Wing, Shastri Bhavan, New Delhi 110 001
Tele FAX 011-23782006

Sh. L. Shivarama Reddy

Dy. Commissioner (Hort.)

Department of Agriculture & Cooperation
Ministry of Agriculture, Government of India
Room No. 480, Krishi Bhavan, New Delhi 110 001
Ph. 011-23385910 Fax : 011-23389529



Small Farmers' Agri-business Consortium

(Department of Agriculture & Cooperation Ministry of Agriculture)
NCUI Auditorium Building, 5th Floor,
3, Siri Institutional Area, August Kranti Marg,
Hauz Khas, New Delhi 110 016, India
Ph 011-26966016, 26966037 Fax 011-26862367
Email sfac@ren02.nic.in Website : www.sfacindia.com

Implementing Agency :

SURANJANA RAY, I.A.S.

Managing Director

D. Bhuyan,

Project Coordinator

Dr. N.K.Mohan,

*Regional Project Coordinator
(Regional Office, Guwahati)*

PROFORMA

Format of Form GFR 19-A

(See Government of India's Decision (1) below rule 150) form of Utilization Certificate for

Sl. No.	Letter No. and Date	Amount

Certified that out of Rs. _____
of grants-in-aid sanctioned during the
year _____ in favour
of _____

under this Ministry/Department letter
No. given in the margin and
Rs. _____

on account of unspent balance of the previous year, a sum of Rs. _____
has been utilized for the purpose of _____
for which it was sanctioned that the balance of Rs. _____ remaining un-utilized
at the end of the year has been surrendered to Government (vide No. _____
dated _____ will be adjusted towards the grants-in-aid payable during the next
year _____.

2. Certified that I have satisfied myself that the conditions on which the grant-in-aid was
sanctioned have been duly fulfilled are being fulfilled and that I have exercised the following
checks to see that the money was actually utilized for the purpose of for which it was sanctioned.

Kinds of checks exercised.

1.
2.
3.

Signature _____
Designation _____
Date _____

(GM/F, C.M. No. 1 (1) - F-11 (A)/73, dated the 23rd April, 1975)

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