



बागवानी मिशन
Horticulture Mission



MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE OPERATIONAL GUIDELINES

April, 2025



Horticulture Division

Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare, Krishi Bhavan, New Delhi
www.midh.gov.in



बागवानी मिशन
Horticulture Mission

MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE

OPERATIONAL GUIDELINES

April, 2025



सत्यमेव जयते

Horticulture Division

Department of Agriculture & Farmers Welfare

Ministry of Agriculture & Farmers Welfare,

Krishi Bhavan, New Delhi

www.midh.gov.in

Contents

1. INTRODUCTION	1
2. MISSION OBJECTIVES	2
3. STRATEGY	2
4. MISSION STRUCTURE	3
I. National Level	3
II. State Level	4
III. District Level	5
IV. Panchayati Raj Institutions	5
V. Technical Support Group	6
5. PROCEDURE FOR APPROVAL & IMPLEMENTATION	6
Strategy and Road map	6
Annual Action Plan	7
6. FUND FLOW MECHANISM	8
7. MISSION INTERVENTIONS	9
I) Production and Productivity Improvement	9
II) Clean Plant Program	10
III) Horticulture Cluster Development Programme	10
IV) Production & Distribution of Planting Material (in project Mode)	10
V) Tissue culture units	11
VI) Vegetable Seed Production	11
VII) Import of planting material	11
VIII) Seed Infrastructure	12
IX) Establishment of New Gardens	12
X) Mushroom Production	12
XI) Rejuvenation / Replacement of Senile Plantation/ Canopy Management	12
XII) Creation of water sources	13
XIII) Protected Cultivation	13
XIV) Precision Farming Development and Extension through PFDCs	13
XV) Promotion of INM/ IPM	14
XVI) Organic Farming	14
XVII) Good Agriculture Practices (GAP)/Bharat GAP	14

XVIII)	Centre of Excellence for Horticulture	15
XIX)	Human Resource Development (HRD) in Horticulture	15
XX)	Pollination Support through Bee-Keeping	15
XXI)	Horticulture Mechanization.....	16
XXII)	Technology Dissemination through Demonstrations/Front Line Demonstration.....	16
XXIII)	Integrated Post Harvest Management	16
XXIV)	Creation of Market Infrastructure	18
XXV)	Processing and Value Addition.....	18
XXVI)	Product Promotion and Market Development	18
XXVII)	Insurance Schemes on Coconut.....	18
8.	MISSION MANGEMENT	18
I)	Support to State Horticulture Mission/Implementing Agencies	18
II)	Institutional Strengthening / FPO Formation.....	18
III)	Horticulture Database	18
IV)	Support to National Level Organizations for Infrastructure Development.....	19
V)	Collaboration with International Agencies.....	19
VI)	Evaluation & other studies	19
9.	ROLE OF NATIONAL AGENCIES	19
10.	NEW PROVISIONS	19
ANNEXURE-I		
	Activity Mapping for Effective Devolution of Funds, Functions and Functionaries under MIDH	21
ANNEXURE-II		
	Indicative Composition of TSG under MIDH at National Level, State Level, District Level for 2021-22 to 2025-26	24
ANNEXURE III		
	Delegation of Powers for Approving Projects under MIDH Scheme	
	(Sub-schemes of NHM, HMNEH, NBM and CIH)#	25
ANNEXURE-IV (a)		
	Format for submitting Action Plan for NHM/HMNEH sub-schemes under MIDH	27
	Format for submitting Detailed Action Plan	29

ANNEXURE-IV (b)

Format for Submitting Annual Action Plan for NBM sub-schemes	31
--	----

ANNEXURE-V

Cost Norms and Pattern of Assistance under MIDH for NHM & HMNEH sub-schemes	33
---	----

<i>Appendix-I: Indicative Unit cost for Area Expansion of selected Fruit Crops</i>	61
---	----

ANNEXURE-VI

National Horticulture Board: Proposed Changes in Components and Cost Norms.....	65
---	----

ANNEXURE-VII

Cost Norms and Pattern of Assistance for Coconut Development Board (CDB)	76
--	----

ANNEXURE-VIII

National Bamboo Mission (NBM).....	78
------------------------------------	----

ANNEXURE –IX

List of National Level agencies of MIDH.....	81
--	----

ANNEXURE –X

Details and clarifications for NCCD Guidelines	84
--	----

Abbreviations

A & FW	Agriculture & Farmers Welfare
AAP	Annual Action Plan
AEZ	Agri-Export Zone
APC	Agricultural Production Commissioner
APEDA	Agricultural & Processed Food Export Development Authority
APMC	Agricultural Produce Marketing Committee
AYUSH	Ayurveda, Unani, Sidha & Homeopathy
BDA	Bamboo Development Agency
BTSG	Bamboo Technical Support Group
CA	Controlled Atmosphere
CDB	Coconut Development Board
CEO	Chief Executive Officer
CIH	Central Institute for Horticulture
CSIR	Council of Scientific & Industrial Research
DA&FW	Department of Agriculture & Farmers Welfare
DASD	Directorate of Arecanut & Spices Development
DCCD	Directorate of Cashew & Cocoa Development
DFU	Disease Forecasting Unit
DHMD	District Horticulture Mission Document
DMC	District Mission Committee
DMI	Directorate of Marketing & Inspection
DONER	Development of North Eastern Region
DPR	Detailed Project Report
EC	Executive Committee
EMC	Empowered Monitoring Committee
FAO	Food & Agriculture Organization
FDA	Forest Development Agency
FHEL	Fresh & Healthy Enterprises Ltd.
FI	Financial Institution
FICCI	Federation of Indian Chambers of Commerce & Industry
FIG	Farmer Interest Group
FLD	Front Line Demonstration
FPO	Farmer Producer Organization
GC	General Council

GFR	General Financial Rules
GOI	Government of India
GS	Gram Sabha
HIL	Hindustan Insecticides Ltd.
HMNEH	Horticulture Mission for North East & Himalayan States
HRD	Human Resource Development
IASRI	Indian Agricultural Statistical Research Institute
ICAR	Indian Council of Agricultural Research
ICFRE	Indian Council of Forestry Research & Education
ICT	Information Communication Technology
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
KVK	Krishi Vigyan Kendra
MA	Market Aggregator
MANAGE	National Institute for Agricultural Extension Management
MoFPI	Ministry of Food Processing Industries
MIDH	Mission for Integrated Development of Horticulture
MNREGS	Mahatma Gandhi Rural Employment Guarantee Scheme
NABARD	Nation Bank for Agriculture & Rural Development
NBB	National Bee Board
NBM	National Bamboo Mission
NCDC	National Cooperative Development Cooperation
NCPAAH	National Committee on Plasticulture Applications in Agriculture & Horticulture
NHB	National Horticulture Board
NHM	National Horticulture Mission
NHRDF	National Horticulture Research & Development Foundation
NLA	National Level Agencies
MPB	National Medicinal Plant Board
NMSA	National Mission on Sustainable Agriculture
NRCC	National Research Centre for Citrus
NSC	National Seeds Corporation
PFDC	Precision Farming Development Centre
PHM	Post Harvest Management
PRI	Panchayati Raj Institution
PSU	Public Sector undertaking

R & D	Research & Development
RCC	Reinforced Cement Concrete
RKVY	Rashtriya Krishi Vikas Yojana
SAU	State Agricultural University
SBDA	State Bamboo Development Agency
SBMD	State Bamboo Mission Document
SC	Sub-Committee
SFAC	Small Farmers Agri-Business Consortium
SFCI	State Farms Corporation of India
SHM	State Horticulture Mission
SHMD	State Horticulture Mission Document
SLEC	State Level Executive Committee
TC	Tissue Culture
TSG	Technical Support Group
TSP	Tribal Sub Plan
UGC	University Grant Commission
UTF	Unilateral Trust Fund

1. INTRODUCTION

1.1 Mission for Integrated Development of Horticulture (MIDH) is a Centrally Sponsored Scheme for the holistic growth of the horticulture sector covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, medicinal & aromatic plants, coconut, cashew, cocoa, bamboo and other horticulture crops. While Government of India (GOI) contributes 60%, of total outlay for developmental programmes in all the States except States in North East and Himalayas, 40% share is contributed by State Governments. In the case of North Eastern and Himalayan States, GOI contribution will be 90% and 10% share is contributed by these States. For programmes of National Horticulture Board (NHB), Coconut Development Board (CDB), Central Institute for Horticulture (CIH), Nagaland, National Level Agencies (NLA) and UTs without legislature, the GOI contribution will be 100%. Guidelines regarding implementation of the scheme are described hereunder.

1.2 MIDH will have the following components and areas of operation:

Sl. No.	Sub Scheme	Target group / Area of operation
1.	NHM	All States & UTs except States in NE and Himalayan Region covering all districts.
2.	HMNEH	All States in NE and Himalayan Region covering all districts.
3.	NHB	All States & UTs focusing on commercial horticulture
4.	CDB	All States and UTs
5.	NBM	All States and UTs
6.	CIH	All NE States

National Horticulture Board: The National Horticulture Board (NHB) was set up by the Government of India as an Autonomous organization under the administrative control of Ministry of Agriculture and Farmers Welfare. The broad aims and objectives of the Board are to develop production clusters/hubs for integrated Hi-tech commercial horticulture, development of Post-harvest and cold chain infrastructure, ensuring availability of quality planting material and to promote adoption of new technologies/tools/ techniques for Hi-tech commercial horticulture etc.

Coconut Development Board: Coconut Development Board is a statutory body established by the Government of India by an Act of Parliament for the integrated development of coconut production and utilization in the country with focus on productivity increase and product diversification.

National Bamboo Mission: The Mission envisages promoting holistic growth of bamboo sector by adopting area-based, regionally differentiated strategy and to increase the area under bamboo cultivation and marketing.

Central Institute Of Horticulture: The institute provides technical support on different aspects of horticultural development with major focus on demonstration of identified technologies specific for the region, production and supply of quality seed and planting material of improved/high yielding varieties, demonstration of proven technologies and training of State department officials and field functionaries on different aspects of horticulture development including post-harvest management, processing and value addition.

MIDH will work closely in convergence with other schemes towards development of all horticulture crops.

1.3 MIDH will also provide technical advice and administrative support to State Governments/ State Horticulture Missions (SHMs) for horticulture specific commodities and other horticulture related activities funded by Rashtriya Krishi Vikas Yojana (RKVY).

2. MISSION OBJECTIVES

2.1 Main objectives of Mission are:

- a) Promote holistic growth of horticulture sector, including bamboo and coconut through area based regionally differentiated strategies, which includes research, technology promotion, extension, post-harvest management, processing and marketing, in consonance with comparative advantage of each State/region and its diverse agro-climatic features;
- b) Encourage farmers to take part in activities in cluster approach;
- c) Enhance horticulture production, augment farmers' income and strengthen nutritional security;
- d) Improve productivity by way of quality germplasm, planting material and water use efficiency through Micro Irrigation;
- e) Support skill development and create employment generation opportunities for rural youth in horticulture and post-harvest management, especially in the cold chain sector;
- f) Enhance production of high value horticulture crops to reduce import dependence.

3. STRATEGY

3.1 To achieve above objectives, the mission will adopt the following strategies:

- a) Adopt an end-to-end holistic approach covering pre-production, production, post harvest management, processing and marketing for appropriate returns to growers/producers;
- b) Create commodity crop specific CoEs in the country to encourage technology adoption;
- c) Promote and adoption of new technologies for horticulture crops with special focus on cold chain infrastructure for extending the shelf life of perishables;
- d) Improve productivity through:
 - i. Diversification, from traditional crops to plantations, orchards, vineyards, flowers, vegetable gardens, medicinal plants and bamboo plantation.
 - ii. Extension of appropriate technology to farmers for high-tech horticulture including protected cultivation and precision farming.
 - iii. Increase of acreage of orchards and horticulture crops, particularly in States where total area under horticulture is less than 50% of agricultural area.
- e) Improve post harvest management, processing for value addition and marketing infrastructure;
- f) Adopt a coordinated approach and promote partnership, convergence and synergy among R&D, processing and marketing agencies in public as well as private sectors, at the National, Regional, State and district levels;
- g) Support capacity-building and Human Resource Development at all levels.

4. MISSION STRUCTURE

(I) NATIONAL LEVEL

a) General Council

4.1 The Mission will have a General Council (GC) at National level under Chairmanship of Union Agriculture & Farmers Welfare Minister. The composition of GC will be as follows:

Minister of Agriculture & Farmers Welfare	:	Chairman
Ministers of Commerce, Food Processing Industries, Rural Development, Development of North Eastern Region (DONER), NITI Aayog, Member (Agriculture)	:	Members
Secretary, Agriculture & Farmers Welfare	:	Member
Director General, ICAR	:	Member
Additional Secretary (I/C of Horticulture, DA& FW)	:	Member
Managing Director, NHB	:	Member
Chairman, CDB	:	Member
Horticulture Commissioner	:	Member
Growers' representatives & Experts from Horticulture Sector, Federation of Indian Chambers of Commerce & Industry (FICCI) OMIT. (7 Members)	:	Members
Joint Secretary, DA & FW & Mission Director	:	Member Secretary

4.2 GC will be the apex body giving overall direction and guidance to Mission, monitor and review its progress and performance, without affecting the pattern of assistance as approved by CCEA. GC will be empowered to lay down and amend operational guidelines including cost norms as well as modification of operational nature and addition or deletion of any crop or component. GC will meet at least once a year. Tenure of non-official members of GC will be for three years from the date of nomination.

b) Executive Committee:

4.3 Executive Committee (EC), headed by Secretary, Department of Agriculture & Farmers Welfare (DA&FW), will oversee activities of the Mission. The EC will comprise of the following:

Secretary (A & FW)	:	Chairperson
Secretaries - Ministry/Department of AYUSH, Food Processing Industries, Rural Development, M/o DONER, Bio-Technology	:	Members
Principal Adviser (Agriculture), NITI Aayog	:	Members
Institutions – Director General, ICAR; Director General ICFRE; Director General, CSIR; Additional Secretary (In charge of Horticulture, DA&FW); Additional Secretary & FA, DA&FW; Joint Secretary (Plant Protection); Horticulture Commissioner; Adviser (Horticulture Statistics); Chairman, APEDA; Managing Director, NHB; CEO CDB; Agriculture Marketing Advisor, DA&FW; COO (NCCD)	:	Members
Three Experts (Production, Post Harvest Management and Marketing)	:	Members
Joint Secretary, DA&FW & Mission Director	:	Member Secretary

- 4.4 EC is empowered to approve projects on the basis of approved subsidy norms. EC is also empowered to approve special interventions for tackling emergent/unforeseen requirements. EC can also constitute Empowered Monitoring Committee (EMC) at Central Level and delegate powers to EMC for approving projects of CoEs and NLAs in accordance with approved cost norms and pattern of assistance. EC will also consist of three non-official experts in the field of Production, Post Harvest Management and Marketing. Tenure of the experts will be for three years from the date of nomination.
- 4.5 Horticulture Division in DA&FW will provide the necessary support to GC/EC/EMC and will administer NHM, HMNEH, NBM and CIH. Managing Director (NHB) will oversee the programmes of NHB while CEO, CDB will oversee the CDB programmes. The existing structure of the Boards and Missions will be maintained to provide general directions for these programmes. EC/EMC will ensure smooth functional linkages among different agencies and meet at least once a year or as required.

(II) STATE LEVEL

A) State Level Sanctioning Committee

- 4.6 For NHM, HMNEH and NBM, State Level Sanctioning Committee (SLSC) under Chairmanship of Chief Secretary having representatives from other concerned Departments of State Government including Forests, the State Agricultural Universities (SAU), Institutes under Indian Council of Agricultural Research (ICAR), FPOs, etc. will approve the Annual Action Plan of MIDH, and oversee the implementation of programmes of the respective States.

B) State Level Executive Committee (SLEC) at State Level:

A State Level Executive Committee (SLEC) would be constituted at the State level under the Chairmanship of Principal Secretary (Horticulture)/APC/ACS having representatives' from Ministry of Agriculture (GoI), NCCD, Department of State Agriculture, Finance, banking sector and other relevant departments. State Mission Director NHM, HMNEH and NBM will be Member Secretary of the concerned SLEC. At operational level, State Governments will have freedom to establish State Horticulture Mission (SHM) and/or State Bamboo Development Authority (SBDA) as a suitable agency for implementing Mission programmes at State and District levels. Panchayati Raj Institutions (PRI) existing in the State will be involved in the implementation of the programme.

- 4.7 State and District level structures will be established keeping in view the specific requirement of the States. Formation of Farmer Groups/ Cooperatives of farmers and their tie-up with Financial Institutions and Market Aggregators would be encouraged.
- 4.8 State level agency will have the following functions:
- a) Prepare Strategic/Perspective and annual State Level Action Plan in consonance with Mission's goals and objectives and in close co-ordination with Technical Support Group, SAUs and ICAR institutes and oversee its implementation;
 - b) The State Missions will follow a cluster-based approach for promotion of horticulture and for focused intervention-economies of scale. States may go for identification of crop specific clusters and preferred/required relaxations in the provisions for the same;
 - c) States must develop a fair transparent system of seeking application from beneficiaries and providing benefit/ assistance under the program;

- d) Organize base-line survey and feasibility studies for distinct areas/clusters (District, sub-District, or a group of Districts) to determine status of horticultural/bamboo production, potential and demand, and tailor assistance accordingly. Similar studies would also be undertaken for other components of the programme;
- e) Receive funds from Central Government, State Government and other sources for carrying on Mission's activities, maintain proper accounts thereof and submit utilization certificate to concerned agencies. State will also maintain SNA account as per instructions of GoI in order to ensure transparency in use of funds released by Center as well as by State under the programme;
- f) Release funds to implementing organizations and oversee, monitor & review implementation of the programmes;
- g) Assist and oversee implementation of schematic activities in the States through farmers, societies, Self-Help Groups, State institutions and other similar entities;
- h) Organize workshops, seminars and training programmes for all interest groups/associations at State level, with the help of SAUs, ICAR Institutes, KVKs and other institutions having technical expertise;
- i) Operationalize Information Communication Technology (ICT) enabled Management Information System (MIS) up to grass root level through MIDH SURAKSHA PORTAL. Each State will develop and host its own web site.
- j) State will ensure updation of progress in the MIS Portal of MIDH SURAKSHA Portal and use of this Portal for implementation of MIDH scheme in the State. States having own MIS portal must integrate their portal with MIDH SURAKSHA Portal within 6 months and furnish monthly progress reports to DA & FW and also upload the same on MIDH SURAKSHA web portal by 5th of each month.

(III) DISTRICT LEVEL

At District level, District Mission Committee (DMC) will be responsible for carrying forward the objectives of the Mission for project formulation, implementation and monitoring. The DMC may be headed by the District Collector/District Magistrate/Chief Executive Officer (CEO) of Zila Parishad/CEO of District Rural Development Agency (DRDA)/CEO of Forest Development Agencies (FDA)/ District Development Officer, having as members, representatives from concerned line Departments, Marketing Boards, local banks, Self Help Groups and other Non-Government organizations. Identification of Horticulture zone or cluster and development of online transparent system for beneficiary selection and digitization.

(IV) PANCHAYATI RAJ INSTITUTIONS

- 4.9 District Planning Committee and Panchayati Raj Institutions (PRI) will be involved in implementing the programme commensurate with their expertise and available infrastructure. They will have a role in implementation of MIDH with regard to:-
- a) Identification of crops/species and beneficiaries in consultation with District Panchayats.
 - b) Training, Extension and Awareness creation through Panchayats and Gram Sabhas (GS).
 - c) Organize PRI and GS meetings and giving feed back to the concerned officials with regard to implementation of MIDH.

4.10 Activity mapping with regard to devolution of Funds, Functions and Functionaries is given at **Annexure I**

(V) TECHNICAL SUPPORT GROUP (TSG)

- 4.11 The Mission will have a strong technical support component composed of domain experts for implementing activities of NHM, HMNEH and NBM. The TSG will be operated through NHB. For post-harvest management and cold chain projects across States, technical support will be provided by NCCD. Service providers could also be engaged for providing technical services in accordance with Terms of Reference laid for the purpose and approved by the Chairman, EC. Horticulture Commissioner/DDG (Hort.), DA&FW will advise the TSGs on all issues relating to R&D planting material, area expansion, rejuvenation, canopy management, INM/IPM and organic farming. TSG would comprise personnel at different levels, who will provide technical services and their honorarium will commensurate with their qualifications and experience. Fresh graduates/Post Graduates having knowledge in horticulture, refrigeration, computer professionals, Agribusiness graduates etc. and young professionals could also be a part of TSG.
- 4.12 TSG will have the following role and functions:
- a) TSG will provide technical support to the Mission for horticulture components.
 - b) TSG will help in developing commodity/crop wise cluster map and potential areas in coordination with ICAR/NHB.
 - c) TSG will undertake visits to States to provide guidance and ensuring monitoring of the projects.
 - d) Conduct studies on different aspects of horticulture/bamboo in all regions.
 - e) Document and disseminate case studies of success stories.
 - f) Assist States in capacity building programmes.
 - g) Provide monthly feed-back reports and any other responsibility assigned
- 4.13 State Missions can also set up State level TSG on the pattern of national level TSG for project formulation, appraisal and concurrent monitoring. State Missions will have freedom to hire consultants for providing technical support at State as well as District level and for this purpose, funds will be provided from States' TSG component. For NBM, zone wise Bamboo Technical Support Groups (BTSG) are to be formed. These BTSGs will have to submit their Annual Action Plans to NBM Cell. Broad function of BTSGs will be same as of TSGs. The BTSG will be housed at the National/Regional level institutions located in different regions, which will have flexible norms for recruiting professionals on contract.
- 4.14 Indicative composition of TSG at National, State and District level is given in **Annexure-II**.
- 4.15 Delegation of powers for approving projects by SLEC and Mission Director is given in **Annexure-III**.

5. PROCEDURE FOR APPROVAL AND IMPLEMENTATION

STRATEGY AND ROADMAP

- 5.1 Based on the strength of the sector in the State, the TSG of the State in coordination with Agriculture University/State Agriculture University/ICAR will develop a crop specific prospective plan to ensure and enable perspective planning. States will prepare the perspective/strategic plan and road map for overall development of horticulture including Bamboo in respective State, duly projecting the targets to be achieved during the respective Finance Commission period. This will form the basis for preparing Annual Action Plan (AAP). The Strategy & Road Map formulated by States should invariably contain information on geography & climate, potential of horticulture/bamboo development, availability of land, SWOT analysis, strategy for development and plan of action proposed to be taken to achieve goals in each district

of the State. The document should focus on crops having comparative advantage and natural potential for development in the State, adoption of cluster approach for production and linking with available infrastructure, or to be created, for post harvest management, processing, marketing and export. While selecting the cluster, preference should be given to those areas where natural resource base and water resources have been developed under watershed development programmes, Rashtriya Krishi Vikas Yojana (RKVY), Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS), etc. Priority should be given for development of such crops, which are required to meet current and future demands.

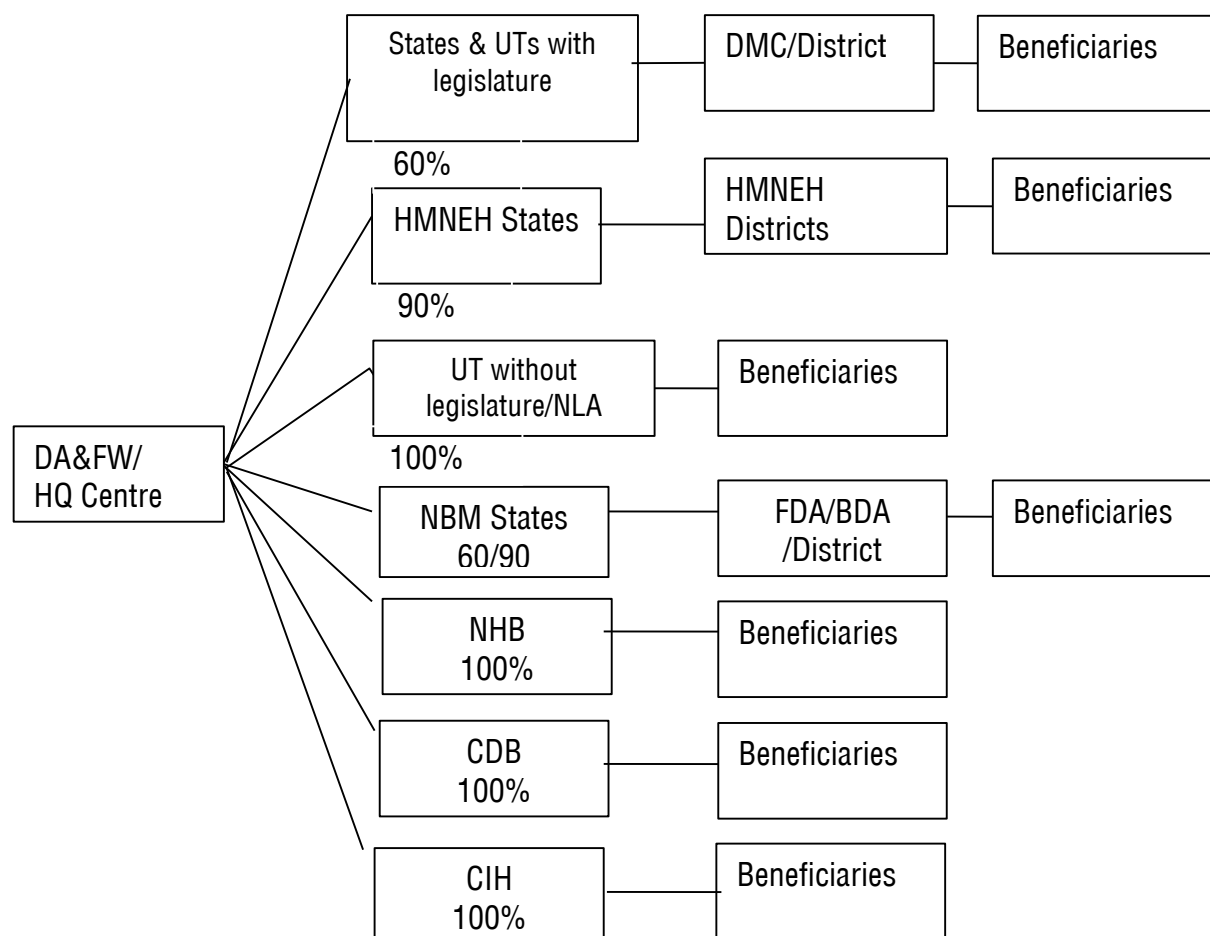
In order to promote and scale-up the production of globally popular important fruits of high nutritional value and for import substitution of these crops, State should focus on promotion of these crops while formulation of Annual Action Plans.

ANNUAL ACTION PLAN (AAP)

- 5.2 AAP needs to be supported with data/write up on outcome of past interventions covering the details of area expansion (variety/species introduced, increase in productivity achieved and number of clusters created), water resource development as per felt need of the State (amount of irrigation potential created, whether linked with micro irrigation, maintenance etc), INM/IPM (including requisite infrastructure created and how these are being utilized for benefit of farmers) and organic farming. Area expansion should be determined based on availability of planting material and a seed/planting material sub-plan shall be prepared separately as part of AAP.
- 5.3 Ministry of Agriculture & FW will communicate the tentative outlay for the year to each State / NLA, which in turn will indicate sector-wise/district-wise allocation. Agencies at District level will prepare Annual Action Plan (AAP) keeping in view Mission and local priority/potential and submit the plan to State Horticulture/Bamboo Mission upto 125% of the tentative allocation within the allocated sum. The States may engage TSG/Consultancy services for preparation of Perspective/Strategic/Annual Action Plans. State Horticulture/ Bamboo Mission in turn will prepare a consolidated proposal for State as a whole, get it vetted by the State Level Sanctioning Committee (SLSC) and furnish the same, including copy in electronic format, to Ministry of Agriculture (MoA) for consideration at the level of Secretary in the Ministry of Agriculture & FW. The Annual Action Plan (AAP) shall essentially be a part of Krishonnati Yojana's (KY) Annual Action Plan and should ensure necessary convergence with other schemes of GoI. All issues relating to horticulture/Bamboo development, covering production, post harvest management and marketing will be covered by SHMs/SBDAs. Formats for submission of Annual Action Plan to DA&FW are specified in **Annexure IV (a) & (b)**.
- 5.4 While finalizing the AAPs, due attention will be paid for earmarking specific targets for Scheduled Caste, Scheduled Tribe, women beneficiaries and beneficiaries of vibrant villages. As an inbuilt provision under MIDH scheme, higher rates of subsidy have been envisaged for taking up activities like creation of infrastructure for post-harvest management and marketing of horticulture produce along with area expansion by beneficiaries in the **North Eastern & Himalayan States, TSP areas, Vibrant villages, Scheduled areas, Andaman & Nicobar and Lakshadweep Islands**.
- 5.5 In order to strengthen/promotion of Farmer Interest Groups (FIG), Farmer Producer Organizations (FPOs), Self Help Groups (SHGs) and Cooperatives, due attention has to be paid for allocation of targets to these groups while finalization of Annual Action Plan. These groups/organizations may also be eligible for availing assistance under various components of the scheme.

6. FUND FLOW MECHANISM

- 6.1 Flow of funds and the utilization by the Implementing Agencies / SHMs / SBDA/ NLAs / PRIs etc from Government of India and utilization of funds shall be governed by extant financial norms. Funds will be released to the Implementing Agencies i.e. State Governments, UTs, NLAs etc. under MIDH as per the extant financial rules and instructions issued by Ministry of Finance from time to time. Implementing Agencies will make arrangements for ensuring transfer of funds to beneficiaries through electronic transfer, preferably to their respective bank accounts through DBT. Flow chart for release of funds under MIDH is given below:



- 6.2 Implementing agencies would be required to undertake activities within the funds released by the GOI and corresponding State share in respect of NHM/HMNEH/NBM. The flow of funds has to be mapped on the MIDH SURAKSHA and the transfer of the funds should be in all time captured on MIDH SURAKSHA. No claims of pending liabilities relating to expenditure over and above released funds will be entertained by DA&FW.

7. MISSION INTERVENTIONS

- 7.1 The Mission will be demand and need based in each segment. Technology will play an important role in different interventions. Technologies such as Information Communication Technology (ICT), Remote Sensing and Geographic Information System will be widely used for planning and monitoring purposes including identification of sites for creating infrastructure facilities for post harvest management, markets and production forecasts.
- 7.2 The interventions envisaged for achieving desired goals would be varied and regionally differentiated with focus on potential crops to be developed in clusters by deploying modern and hi-tech interventions, duly ensuring backward and forward linkages. Revised cost norms and pattern of assistance, as given in **Annexure-V to VIII**, will be adopted. Detailed guidelines in respect of NHB and CDB including modalities of approval of projects will be issued separately for effective implementation of these schemes.

Key Elements of MIDH

- Base line survey
- Involvement of PRI
- Area based Annual and Perspective Plans
- Applied Research with focus on Region (HMNEH) and crop Demand driven production based on cluster approach
- Availability of quality seeds and planting material
- Technology driven programmes to improve productivity and quality, e.g.
 - Introduction of improved varieties.
 - Rejuvenation with improved cultivars.
 - High Density Plantations.
 - Bee-keeping for crop pollination in horticulture
 - Capacity building of farmers and personnel
 - Horticulture Mechanization
- Post Harvest Management and cold chain
- Marketing infrastructure development
- Support to FIGs/FPCs/FPOs/SHGs and other farmer aggregates / Self Help Groups (SHGs) Data base generation, compilation and analysis
- Technical Support by NLAs

PRODUCTION AND PRODUCTIVITY IMPROVEMENT

- 7.3 The Mission will focus primarily on increasing both production and productivity through adoption of improved and appropriate technologies for ensuring quality, including genetic upgradation of all horticultural crops and addressing challenges of climate change. Special emphasis will also be given for adoption of area-based cluster approach towards developing regionally differentiated crops, which are agro-climatically most suitable for the State/region. creating backward linkages for farmer group/FPO/FPCs Availability of good quality planting material will receive focused attention. Efforts will also be made to establish and upgrade nurseries and TC Units. This will be supplemented through plantation development programmes through addition of new areas under improved varieties to meet market demand. **Planting material of seed origin for fruit crops which can be vegetatively propagated will not qualify for subsidy assistance.**

7.4 **Clean Plant Programme:** To boost the availability of quality planting material in the country and to become self-reliant in supply of disease-free quality planting material a “Clean Plant Programme” to be implemented with Asian Development Bank (ADB) funding support. The CPP scheme will develop Clean Plant Centres for commercially important Fruit Crops across the country in different agro-climatic zones. The Centers will produce, maintain and distribute pathogen-free Quality Planting Material of identified crops by applying therapeutics and State of Art technology. This will give a fillip to horticulture crops production by providing disease free planting material and protect ecosystem through proactive virus and disease control measures. The CPP initiative shall bring in Certification and Traceability in the planting material supply chain and make country self-sustainable in production and supply of Quality Planting Material of high value Horticulture plants. This will be a Central Sector Programme and will be implemented through NHB.

7.5 **Horticulture Cluster Development Programme:** To address the challenges and enhance the global competitiveness of the Indian horticulture sector, Horticulture Cluster Development Programme is to be implemented under MIDH wherein horticulture clusters have to be developed under MIDH scheme. HCDP also aim to develop large scale clusters for vegetable production closer to major consumption centers which will reduce price volatility and will ensure supply of vegetable throughout the year. This will be a Central Sector Programme and will be implemented through NHB. This programme is designed to leverage the geographical specialization of horticulture clusters and promote integrated and market-led development of 3 verticals:

- o pre-production and production,
- o post-harvest management and value addition
- o logistics, branding and marketing activities.

7.6 **Production & Distribution of Planting Material (in project mode):** Production and distribution of good quality seeds and planting material will receive top priority. States will have a network of nurseries for producing planting material, which were established through Central or State assistance. To meet the requirement of planting material (for bringing additional area under improved varieties of horticultural crops and for rejuvenation programme for old/ senile plantations), assistance will be provided for setting up new large, small and plug type hi-tech nurseries under the Public as well as Private sector as per details in **Annexure V**.

The support will mainly include the following components as per the requirement of the project:

- (i) Proper fencing.
- (ii) Scion / Mother block of improved varieties.
- (iii) Root stock block (Rhizome bank in case of bamboo).
- (iv) Irrigation facilities.
- (v) Hi-tech green-house having insect proof netting on sides and fogging and misting systems (only for plug type hi-tech nursery).
- (vi) Hardening/maintenance in insect proof net house with light screening properties and sprinkler irrigation system.
- (vii) Pump house to provide sufficient irrigation to the plants and water storage tank to meet at least 2 days requirement.
- (viii) Soil solarization - steam sterilization system with boilers.

- 7.7 Nurseries will also be regulated under legislation in force relating to seeds and planting material. Efforts will be made to establish nurseries at production cluster itself.
- 7.8 Nurseries will be encouraged to go in for accreditation. Planting material for MIDH will be mandatorily procured only from Govt. accredited (NHB, CIH, DCCD, CDB etc.) nurseries. The AAP would have area expansion target only upto the level of availability of good quality planting material from accredited nurseries. SHM will also ensure that all nurseries set up under MIDH are accredited within period of twelve months through National Horticulture Board, Coconut Development Board (for coconut).
- 7.9 Nurseries in the Public and Private sector can avail assistance to upgrade nursery infrastructure to meet accreditation norms. Moreover, NHB will take up projects for setting up mother block and root stock nursery, as well as nursery accreditation with 100% assistance to public sector as per norms given in **Annexure VI**.
- 7.10 CDB will arrange production and distribution of quality planting material for coconut through Demonstration cum seed production forms, Regional Nurseries and Nucleus coconut seed form, as per norms given in **Annexure VII**.
- 7.11 The support to Bamboo nurseries will be provided as per norms at **Annexure-VIII**.

TISSUE CULTURE UNITS:

- 7.12 New Tissue Culture (TC) units will be established and assistance will be provided for rehabilitation/ strengthening of existing TC Units. New TC units will produce 25 lakh plants/year of the mandated crop for which protocols are available for commercial use. In the event of production of lesser number of plants, cost of lab will be reduced on a pro rata basis (subject to its viability). New TC unit projects for public sector will be sanctioned to only those agencies, which have required technical manpower. No recurring expenditure for the manpower and contingencies will be borne under MIDH. Each TC unit would get itself accredited as per standards and norms of Department of Bio Technology within eighteen months from the date of receiving funds failing which the assistance provided under the scheme, will have to be returned.

VEGETABLE SEED PRODUCTION

- 7.13 Production of certified disease-free vegetable seedlings' will be encouraged for hybrid cultivars. Wherever necessary, 'plug technology' and environment control for germination, growth and hardening of vegetable seedlings may be introduced. The infrastructure facilities will include a green house with maximum area of 10,000 sq. meter, including hardening facilities, designed for tropical conditions, with insect netting on sides and rolling poly sheets. The plants will be propagated in plastic trays having small plugs of varying sizes for different crops. Sprinkler irrigation system will be installed. The infrastructure for media sterilization i.e. steam boiler, holding bins, etc will also be provided. The nurseries will ensure keeping the plug type seedling trays on benches and not the ground to avoid disease and root damage.

Import of Planting Material

- 7.14 With a view to procuring best quality planting material of latest varieties of horticultural crops, a component has been included providing assistance for meeting cost of planting material imported from abroad. Import will only be allowed if we have appropriate PEQ facility developed and maintained.
- 7.15 PEQ facility- In order to improve prosperity of horticulture growers by increasing the productivity of orchards through supply of genuine and quality planting material, Post Entry Quarantine (PEQ) facilities may be created for high value imported horticulture crops. This will help in increasing the horticulture production and productivity. These facilities will be created by ICAR Institutes with MIDH funding.

- 7.16 The State Horticulture Mission/State Bamboo Development Agency will ensure timely availability of good quality seeds and planting material to farmers.

IMPORTANT POINTS WITH REGARD TO PLANTING MATERIAL

- i. Make a variety wise assessment of requirement and availability.
- ii. Nurseries to have mother blocks and required infrastructure.
- iii. Planting material should be checked and certified for its quality.
- iv. Disease-free material supplied to farmers through accredited nurseries.
- v. Nurseries established under MIDH should be accredited mandatorily within one year through NHB.
- vi. Use planting material of seedling origin for perennial fruit crops is not supported.
- vii. Planting material over long distances is not encouraged.

SEED INFRASTRUCTURE

- 7.17 To facilitate proper handling, storage and packaging of seeds, assistance will be provided for creating infrastructure like drying platforms, storage bins, packaging unit and related equipments.

ESTABLISHMENT OF NEW GARDENS

- 7.18 The Mission envisages coverage of area under improved varieties by using certified seeds and planting material of horticultural crops. Norms for area expansion of fruits, vegetables, plantation crops and other crops including flowers, spices, aromatic and medicinal plants are also given in **Annexure-V**. Area expansion will be done in conjunction with Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) under which cost on labour component of work such as digging, fencing etc could be met with. Details of assistance for bringing new areas by NBM, CDB scheme are given in **Annexure-VI** and **Annexure VIII** respectively. NHB will take up commercial horticulture development in open field condition on project mode as per norms given in **Annexure VII**. Cost of raising new plantations will, however, vary from crop to crop which will be taken into consideration while providing assistance to the beneficiary.

IMPORTANT POINTS WITH REGARD TO NEW GARDENS

- i. Focus on high yielding varieties for productivity enhancement.
- ii. Planting material to be sourced from NHB accredited nurseries.
- iii. New areas to be taken up in identified clusters of mandated crop.
- iv. Micro Irrigation to be integrated for better survival.
- v. Use of hydrogel to reduce moisture stress and improve productivity.
- vi. Payment to be released to the beneficiary as per norms prescribed.

MUSHROOM PRODUCTION

- 7.19 In case of mushroom, assistance will be provided for setting up of individual mushroom production, spawn production and compost making units, as per the details given in **Annexure V**. **Details of small-scale mushroom production unit are also available in Annexure V.**

REJUVENATION / REPLACEMENT OF SENILE PLANTATIONS / CANOPY MANAGEMENT

- 7.20 Rejuvenation programme will address orchards and plantations which have low productivity. It will be implemented through individual farmers, farmers' cooperatives, Self-Help Groups, and commodity organizations. Assistance will be

available only in respect of rejuvenating/replanting senile and unproductive plantations through proven technologies. However, assistance will depend on the nature and requirement of particular crop. Canopy management will address maintenance of tree architecture as a means for productivity enhancement, particularly for fruit crops and high-density plantations. In case of seedling origin, uneconomical orchards will be considered for replanting with improved varieties.

7.21 In the case of bamboo, improvement of existing stock in non-forest areas will be taken up as per norms given in **Annexure VIII**.

7.22 Similarly, in the case of coconut, replanting and rejuvenation of old coconut gardens will be taken up as per norms given in **Annexure VII**.

CREATION OF WATER SOURCES

7.23 Under the Mission, assistance will be provided for creating water sources through construction of community tanks, farm ponds/reservoirs with plastic / RCC lining to ensure life saving irrigation to horticulture crops (**Annexure V and Annexure VI**). This will be in conjunction with MNREGS and wherever possible adequate convergence should be ensured. These water bodies may be linked with Micro Irrigation facility for judicious use of water. Maintenance of the water source will be the responsibility of the community.

7.24 Assistance would also be provided for creating water source through construction of farm ponds/tube wells/dug wells for individuals. For smaller size of the ponds/tube wells/dug wells, cost will be admissible on pro rata basis depending upon the command area. This will also be in conjunction with MGNREGS. However, for non MGNREGS beneficiaries, assistance will be provided including the cost of plastic/RCC lining. Lining material should conform to BIS standards. Maintenance of the asset will be the responsibility of beneficiary.

The water sources created under MIDH should be made from elite material and the product quality should be vetted through Government institutes like ICAR or any other Government organization having expertise in the sector. SHM will also ensure that the structures created should be used for the purpose created.

PROTECTED CULTIVATION

7.25 Activities like construction of green houses, shade net house, plastic mulching, rain shelters, plastic tunnels and anti bird/ hail nets would be promoted under the Mission (**Annexure V**). Provision has been made for selecting a variety of construction material for green houses and shade net houses. The cost is inclusive of irrigation systems. Preference will be given to use locally available material to minimize cost of construction of such structures. However, for availing/ subsidy assistance, all material/ technologies should conform to BIS standards. New components like Hydroponics and Aeroponics, Soil Replacement, Sensor Based Automation System for fertigation, Solar Fencing, Weed Mat, etc will also be promoted under the Mission (**Annexure V**).

PRECISION FARMING DEVELOPMENT AND EXTENSION THROUGH PFDCS

7.26 Existing Precision Farming Development Centres (PFDC) will be involved to develop regionally differentiated technologies for their validation and dissemination. PFDCs are anchored in SAUs, ICAR Institutes and IIT, Kharagpur. On account of their experience in conducting applied research on precision application, they have expertise in terms of manpower and equipment. PFDCs will be equipped with necessary hardware and software needed for generating information on precision farming techniques on the farmers' field. The ultimate goal is to provide requisite information to farmers so that they are in a position to apply necessary inputs. Other organisations like ICAR Institutes and Institutes in Private sector will also be involved in technology development. For this purpose, financial assistance would be provided to PFDCs from MIDH on project basis through the SHM. The proposal of PFDCs will be approved after the

technical vetting by Horticulture Division. PFDCs will take up the activities such as trials, demonstrations for precision farming technologies like hydroponics and aeroponics for horticulture crops, survey to ascertain field adoption of the technology, training of farmers/officials, display centre, publicity etc. PFDCs will also develop appropriate model costs in consultation with Horticulture Commissioner by conducting work study in different geographical locations and submit them to the Ministry for adoption.

PROMOTION OF INTEGRATED NUTRIENT MANAGEMENT (INM) AND INTEGRATED PEST MANAGEMENT (IPM)

- 7.27 Assistance for Integrated Nutrient Management (INM) and Integrated Pest Management (IPM) measures will be provided for horticultural crops as well as bamboo, as indicated in **Annexure-V** and **Annexure-VI** respectively. Assistance will also be available for developing facilities like Plant Health Clinics both under Public and Private sector.
- 7.28 Under INM component, subsidy can be availed for use of liquid bio fertilizers of N, P and K such as Rhizobium/Azospirillum/Azotobactor, Phosphate Solubilizing Bacteria (PSB) and Potash Mobilizing Bacteria (KMB), to be applied in combination, in demonstration and other programmes.

ORGANIC FARMING

- 7.29 Organic farming in horticulture will be promoted to harness environmental and economic benefits by way of adoption of organic farming techniques along with its certification.
- 7.30 For adopting organic farming for perennial and non-perennial fruit crops, vegetables, aromatic plants, spices etc., additional assistance will be given as per PKVY norms over and above the area expansion programme for a maximum area of 4 ha per beneficiary, spread over a period of three years. For organic cultivation of vegetables, assistance will also be given as per PKVY norms. Assistance will be used for generating on-farm inputs. Specification and design parameters of Agro Textiles - HDPE woven beds for vermiculture will conform to BIS standards (IS 15907:2010). Organic certification will be guided by service providers and certification agencies accredited by authorized agencies (APEDA/NCONF).

IMPORTANT POINTS WITH REGARD TO ORGANIC FARMING

- i. Only take up such crops which command a premium.
- ii. Ensure market linkages for the organic produce.
- iii. Organic certification by accredited agencies to be ensured.
- iv. Don't take up organic farming in isolated patches.

GOOD AGRICULTURE PRACTICES (GAP)/BHARAT GAP

- 7.31 GAP certification has been introduced to encourage farmers to adopt good agricultural practices in line with global GAP, so that farmers are able to get better price for their produce in domestic as well as international market. Certification agencies to be involved for this will be as per list approved by authorized agencies (APEDA/NCONF).
- 7.32 In addition, a simplified system of GAP certification system focusing on product quality, produce safety, food safety and hygiene, workers safety and traceability has been identified in this Department and accordingly, Department of Agriculture and Farmers Welfare (DA&FW) has launched Bharat GAP Certification System with National Horticulture Board (NHB) as the nodal Implementing Agency. States may encourage farmers to adopt the newly launched program.

CENTRE OF EXCELLENCE FOR HORTICULTURE

- 7.33 Centre of Excellence may be established for different horticultural produces which will serve as demonstration and training centres as well as source of elite planting material and vegetable seedlings under protected cultivation.

HUMAN RESOURCE DEVELOPMENT (HRD) IN HORTICULTURE

- 7.34 Under HRD programme, training of farmers, entrepreneurs, field level workers and officers will be taken up. Programme for providing appropriate training to farmers for adoption of high yielding varieties of crops and farming system will be taken up at State level and outside the State. Programme for training of officials concerned with implementation field level workers who will in turn train/guide farmers will also be taken up (**Annexure V & Annexure VI**).
- 7.35 Assistance for organizing training courses for Supervisors, Entrepreneurs, Gardeners and Field Functionaries will be provided.
- 7.36 Training programme for Supervisors, Gardeners and Agri/Horti Entrepreneurs will be available as per approved courses of Training Institutes/Agriculture Skill Council of India (ASCI) for Horticulture Sector. The Training programmes will be organised through ASCI or Training Institutes like selected State Agricultural Universities (SAU), ICAR Institutes, Deemed Universities/Private Universities recognized by UGC having faculty in horticulture, Krishi Vigyan Kendras. Departmental staff will be trained under various ongoing training programmes. Training expenses will be met by the State Horticulture Mission.
- 7.37 Minimum qualification for Supervisory & Agri/Horti Entrepreneurs training programme would be Higher Secondary and for Gardeners it would be Class-VIII (Middle) standard.
- 7.38 Institutions identified for training should have minimum infrastructure facilities including class rooms, staff, hostel facilities etc.
- 7.39 The courses will be of one year duration for Supervisors, six months for Gardeners and three months for Entrepreneurs. In order to keep the program more attractive, a monthly stipend will be provided in the form of free boarding & lodging. These courses will be residential. At the end of the training, Supervisors will be awarded a Diploma in horticulture, while Gardeners and Entrepreneurs will be awarded a Certificate of training in horticulture. At least 25 Supervisors, 50 Gardeners and 25 Entrepreneurs will be trained in each participating institution annually.
- 7.40 In case States wish to organize specialized training courses on horticulture related subjects, assistance will be provided for the same to concerned Institutes directly, based on recommendation of concerned State (s). Such training would generally be of short duration of 7 - 10 days for 20 to 25 participants.
- 7.41 Trainers, who are required to train others, can be deputed abroad for training, for which assistance would be made available for meeting the travel cost and course fee. Concerned State Departments of Horticulture/Agriculture/SHM function as nodal agency for this purpose. Funds will be made available to SHMs for meeting expenses of candidates involved in implementation of Mission programmes based on their specific proposal. The cost norms of HRD programmes are applicable as per Annexure V.

POLLINATION SUPPORT THROUGH BEE-KEEPING

- 7.42 In order to maximize agricultural production, honey-bee can be used as an important input. The responsibility of coordinating the bee-keeping development programme in State will be vested in the identified State Designated Agency (SDA) or any institution/society having capability.

- 7.43 Assistance will be available for activities on development of nucleus stock of honey bees, bee breeding, distribution of honey bee colonies hives and bee keeping equipments (**Annexure V**).

HORTICULTURE MECHANIZATION

- 7.44 Horticulture mechanization is aimed to improve farm efficiency and reduce drudgery of farm work force. Assistance in this regard will be provided for activities such as procurement of power operated machines & tools, besides import of new machines (**Annexure V**). Assistance for horticulture mechanization will also be available to such farmer groups, Self Help Groups and women farmer groups having at least 10 members, who are engaged in cultivation of horticultural crops provided balance 60% of the cost of machines and tools is borne by such groups. SHM will enter in to MoU with such association/groups to ensure proper upkeep, running and maintenance of the machines and tools.

TECHNOLOGY DISSEMINATION THROUGH DEMONSTRATIONS/ FRONT LINE DEMONSTRATION

- 7.45 Latest technologies will be promoted on crop specific cultivation, use of IPM/INM, protected cultivation, organic farming through farmer participatory demonstration in a compact area of one hectare, which will be organized at strategic locations in farmer's field for which assistance will be limited to 75% of cost. For green house cultivation, area will be limited to 500 sq. meter. Farms in public sector, ICAR, SAUs, Deemed Universities having faculty in horticulture, could be sites for Front Line Demonstrations, for which 100% assistance will be provided, and maximum assistance will not exceed Rs. 25 lakh per project.
- 7.46 Demonstration on bamboo will be taken up as per norms indicated in **Annexure VIII** and on coconut as per norms given in **Annexure VII**.

INTEGRATED POST HARVEST MANAGEMENT

- 7.47 Under post-harvest management, including that for Medicinal plants, activities like handling, grading, pre-conditioning, packaging, transient storage, transportation, distribution, curing and ripening and where possible long term storage can be taken up. Existing schemes of the Directorate of Marketing and Inspection (DMI), National Cooperative Development Corporation (NCDC), Deptt. of AYUSH and MoFPI will be leveraged to the extent possible. MIDH would include projects relating to establishment of pre-cooling units, 'on-farm' pack houses, mobile pre-cooling units, staging cold rooms, cold storage units with and without controlled atmosphere capability, integrated cold chain system, supply of refrigerated vans, refrigerated containers, primary/mobile processing units, ripening chambers, , preservation units, onion storage units, Small scale single product grading and packing line, Solar Crop Dryer and Integrated Supply Chain Project. These projects will be entrepreneur driven and provided credit linked back-ended subsidy. PSUs/Government agencies/ Cooperatives/ Farmers' groups/ FPOs/SHGs/ etc. recognized/registered by the DMCs, having at least 25 members, will also be entitled to avail assistance for such activities. They may avail back ended subsidy without credit link, subject to condition that they are able to meet their share of the project cost.

COLD CHAIN INFRASTRUCTURE

- 7.48 Assistance for setting up of new cold storage infrastructure will be available only to multiple chamber cold storage units with technologies which are energy efficient and approved by Govt. of India. The infrastructure may comprise of the components like insulation 60 mm to 200 mm with other requisite components like insulated panels, floor insulation, insulated doors and Cooling System and Refrigeration Technology / Firefighting/ Electrical/building automation. Cold storage with PUF panel insulation will be given preference.

Cold storages (long term storage) up to 5000 MT capacity will be promoted under NHM/HMNEH sub schemes (Annexure V), capacity above 5000 MT up to 20000 MT will be promoted under NHB sub scheme (Annexure VII).

However, in order to increase the cold storage capacity of the country, cold storages beyond 5000 MT can also be considered under NHM/HMNEH wherein the subsidy will be restricted to 5000 MT only. In the States wherein top up subsidy is being given for Cold Storage, it may only be considered with the condition that the top up subsidy may also be extended to the projects approved under National Horticulture Board and States may also ensure that the said projects should be the part of 30% financial outlay earmarked for Post Harvest Management components.

In the context for cold storages- both for positive temperature application (Above 0° C) and Negative temperature application (below 0° C), 3.4 cubic meter (CUM) or 120 cubic feet (CFT) of chamber volume shall be equivalent to one MT of storage capacity. Similarly for ripening chambers 11 Cum of chamber space shall be equivalent to one MT of storage capacity for ripening chambers and 4.5 Cum of space would be equivalent to one MT of storage capacity for Apple storage for Refrigerated transport. Assistance of Pre-cooling will be linked to pack house and cold room staging. Frozen Chambers (short term and long term), 3.4 cubic meter (CUM) or 120 cubic feet (CFT) of chamber volume shall be equivalent to one MT of storage capacity, (Range -15° c to - 45° c). (Detailed technical specifications of all Cold Storage components are available in NCCD Guidelines).

New technologies need to be promoted under MIDH like energy efficient cooling systems and environment friendly refrigerants with inverter technology for walk in standalone cold rooms, Freezers, pack house cold rooms, pre-coolers, blast coolers and blast freezers etc and advanced cooling system for bigger cold storages with high efficiency evaporators, unit coolers, Electronic expansion valves, Humidity Sensors, Controllers and Display unit, Temperature Sensors, controllers, and Display, Dry firefighting equipment like cylinders and water based Fire Hydrant systems as per regulations, Datta logging and Automation through Microprocessors for efficient BMS, Solar Panels, DG set, transformers, Electrical – Electronic panels for distribution of electricity to refrigeration units, pumps, condenser fans, cooling towers, etc fitted and controlled through microprocessors and HMIs for automation, data monitoring, energy efficiency, ease of serviceability and efficient operations along with DG set panel, Power factor panel, all types of Controls and safety equipments necessary for refrigeration control system, Fire retardant Electrical Cables for all connections, systematic use of cable trays, emergency lighting, hooters and emergency alarms, Earthing and Lightning arrestors, fire escapes. Some details/clarifications in respect of NCCD guidelines are placed at **Annexure X**.

- 7.49 Extant specifications standards and protocols on cold storage and cold-chain components will be adhered to while approving cold storage projects. Revisions to technical standards and adherence protocols shall be updated by National Centre for Cold-chain Development (NCCD) as necessary when improved technologies and efficiencies are introduced/ understood/ approved.
- 7.50 Assistance can also be availed for a combination of PHM infrastructure components by a beneficiary, within the prescribed norms of individual items. Assistance will be available to individuals, Group of farmers/consumers, Partnership/ Proprietary firms, Self Help Groups (SHGs), Farmers Producer Organization (FPOs), Companies, Corporations, Cooperatives, Cooperative Marketing Federations, Local bodies, Agricultural Produce Market Committees (APMC) & Marketing Boards and State Governments.
- 7.51 Assistance will also be available for taking up cold chain components so as to integrate the activities into a single project, as a new component during 15th FC period.
- 7.52 In the case of bamboo, PHM will also include post-harvest storage and treatment facilities for bamboo, as per norms given in **Annexure VIII**.
- 7.53 Proposals on long distance transport solutions on project basis shall be supported under NHB sub-scheme.

CREATION OF MARKET INFRASTRUCTURE

- 7.54 Main objectives of providing assistance under this component is to ensure availability of Retail markets/Outlets for horticulture commodities;
- 7.55 Assistance under the Scheme will be provided as credit linked back ended subsidy for setting up retail markets/outlets. Assistance will also be provided for setting up static / mobile vending cart/ platform with cool chamber.
- 7.56 Assistance will be available to individuals, Group of farmers/consumers, Partnership/ Proprietary firms, Self Help Groups (SHGs), Farmers Producer Organization (FPOs), Companies, Corporations, Cooperatives, Cooperative Marketing Federations, Local bodies, Agricultural Produce Market Committees (APMC) & Marketing Boards and State Governments.
- 7.57 In the case of bamboo, assistance will be extended for setting up Bamboo Bazaars, Bamboo wholesale retail markets near villages and retail outlets as per norms indicated in **Annexure VIII**.

PROCESSING & VALUE ADDITION

- 7.58 Processing of horticultural produce and value addition is an important activity. Therefore, primary / minimal processing units and Food processing units will be promoted under sub schemes of MIDH as per norms indicated in **Annexure V**.

PRODUCT PROMOTION AND MARKET DEVELOPMENT

- 7.59 The NHB will take up projects on product promotion and market development for horticulture crops. CDB will take up similar services for coconut.

INSURANCE SCHEMES ON COCONUT

- 7.60 The CDB will implement scheme of Kera Suraksha Insurance for the benefit of Coconut growers, as per norms given in Annexure VIII, till the time it is included in the regular Insurance scheme of the Ministry.

8. MISSION MANAGEMENT

SUPPORT TO STATE HORTICULTURE MISSION/IMPLEMENTING AGENCIES

- 8.1 For managing various activities of Mission at State & District Mission offices and implementing agencies for administrative expenses, Consultants at State & District level, project preparation, computerization, contingency etc. 2.5% of total annual allocation will be provided to State Horticulture Missions/Implementing Agencies. State/Implementing Agencies will make provision for this in their Annual Action Plan.
- 8.2 Separate provision will be available for awareness generation and promotional programmes on horticulture, as per prescribed norms.

INSTITUTIONAL STRENGTHENING

- 8.3 Mission Head Quarter at National & State level and that of NHB and CDB will be strengthened for database creation and collection, use of Information Technology, development of software and procurement of hardware, hiring of vehicle etc, for which funding will be made under TSG component of the Mission.

HORTICULTURE DATABASE

- 8.4 Provision has been made for strengthening horticulture statistical database, which will be implemented through active involvement of SHMs, Directorate of Horticulture and Institutes like Indian Agricultural Statistical Research Institute (IASRI) etc. on a project mode. Institutions like IASRI will be engaged as NLA for undertaking specific project on horticulture statistics. Horticulture Statistics division of DA&FW will be the nodal agency to lead and coordinate this activity.

SUPPORT TO NATIONAL LEVEL ORGANIZATIONS FOR INFRASTRUCTURE DEVELOPMENT

- 8.5 The MIDH, within the ambit of sub missions, shall provide funds to National level organizations including cooperatives and FPOs for taking up innovative projects in the area of horticulture development, post-harvest management, processing and marketing depending upon the soundness of its financial position and previous experience. Funding will be provided under the relevant components of the Mission.

COLLABORATION WITH INTERNATIONAL AGENCIES

- 8.6 Attempts will be made to collaborate with international agencies like FAO, GIZ, World Bank, Asian Development Bank, JICA etc. and countries which have a developed modern horticulture sector for taking up programmes for development of horticulture. FAO has a Unilateral Trust Fund (UTF) programme under which there is provision to operate projects on mutually agreed terms and conditions. Under collaborative programme, activities to be undertaken would include import of planting material, cold chain, hiring of International Domain Experts, organize study tours and training programmes under aegis of MIDH. Funds for this purpose will be earmarked in Annual Budget of Department of Agriculture & Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India under TSG component of the Mission. However, for implementing project under bi-lateral agreement or multi-lateral agency undertaking, programme funds shall be utilized.

EVALUATION & OTHER STUDIES

- 8.7 Monitoring Missions, comprising of experts will be sent to States from time to time by National Mission, which will be organized through the TSG. States will also conduct evaluation studies on project basis under State level TSG component. Mid Term and end evaluation will be conducted at the middle and end of the plan period. Concurrent evaluation will also be carried out by engaging suitable agencies in consultation with State agencies. Assistance for such studies will be on project basis. The MIDH will commission short term studies on various aspects of horticulture depending on need and emerging requirements. Such studies will also be on project basis.

9. ROLE OF NATIONAL LEVEL AGENCIES:

MIDH, assistance is also provided to National Level Agencies (NLAs) which are responsible for implementation of innovative projects in the field of horticulture development which includes use of advance technologies like micro irrigation, precision farming and hi-tech horticulture etc. List of NLAs alongwith details of their expertise is at **Annexure IX**.

10. NEW PROVISIONS:

- i) MIDH will be implemented in all districts in the country.
- ii) Credit linkage for projects upto Rs. 30 lakhs may be optional and subsidy would be released in two instalments in TRA/Escrow/SRF accounts based on progress after satisfactory Joint inspection report.
- iii) Under the existing component of "Plantation Infrastructure Development" including Protected Cultivation, High Tech Plug Type nurseries under controlled conditions will be promoted with a focus on easy availability of quality planting material especially in vegetable crops.
- iv) Under the existing component of "Import of Planting Material", establishment of mother block and PEQ facilities will be supported and private sector participation will be allowed to augment availability of quality planting material in the country but emphasis will be on developing techniques of Tissue Culture (TC) in crop in order to substitute imports of planting material. The imported planting material will necessarily be quarantined at the PEQ created by MIDH in ICAR institutes.

- v) In order to encourage private players for importing elite planting material, royalty will also be provided to private importers for importing planting material which will be finalized by the committee under the Chairmanship of Joint Secretary (Horticulture) and comprising of other members i.e. ADG (Horticulture) ICAR, representative from PPVFRA, representative from Seed division and Horticulture Commissioner (Member Secretary).
- vi) The additional crops of commercial importance like Kamalam (Dragon fruit), Datepalm, Avocado, Blueberry, Blackberry, Rambutan, Persimmon, Durian, Mangosteen, Phalsa, Tamarind, Jamun, Bael, Karonda, Khirni, Seabuckthorn, Garcinia, Hanuman phal (Soursop), Carobmola, Jackfruit, Makhana, Lac hosting plants, Water Chestnut (Singara), Onion, Garlic and hybrid vegetables and important identified medicinal crops (as mentioned in Annexure V) etc. will also be supported. New crops may be added with the approval of Hon'ble Minister for Agriculture and Farmers' Welfare, as and when required.
- vii) Keeping in view the development of modern technologies, Ultra Hi-density plantations of specific crops with support structure like trellis, support structure for anti hail net/ anti bird net, fruit covers, soil less cultivation including Hydroponics and Aeroponics, use of eco friendly agro-textile products for mulching, weed mats etc. flexi water storage tanks for North Eastern and Himalayan States, construction of tube well/ bore well and sensor based automation system for fertigation will be supported.
- viii) Under the component of "Integrated Post Harvest Management", integrated supply chain projects will be supported by integration of approved components and expand the scope of integrated pack houses by including components like automatic grading line, cold room and material handling equipments etc for reduction in post-harvest losses and plug the gaps in supply chain.
- ix) Use of solar based technologies like solar panel for drip irrigation and circulation fans under protected cultivation, solar fencing, solar power cold storage, solar crops dryers etc. will be supported.
- x) With a view to achieve economies of scale and focus on export promotion and import substitution, Cluster based Development of Horticulture for high value horticulture crops in identified clusters will be supported.
- xi) For substitution of import of high value crops, large scale cultivation of Apple, Almond, Walnut and Cashew in the project mode with a cap on maximum amount of subsidy per project will be supported.
- xii) Promotion of low-cost, small-scale mushroom production units to promote start-ups and women entrepreneurship.
- xiii) Promotion of small horticulture clusters with integrated approach.
- xiv) Focus on productivity enhancement through "Horticulture based Integrated Farming Systems" by demonstration of modern technologies and good agricultural practices.
- xv) Extension of approved components like accreditation and rating of nurseries, creation of water sources, farm mechanization and adoption & certification of organic farming etc. to the Sub scheme of Coconut Development Board.
- xvi) Components have been included in the NBM such as Establishment of Tissue Culture Nurseries & upgradation of exiting TC nurseries, Raising saplings in existing Government TC/ non TC nurseries, Stock improvement in existing bamboo plantation, Charcoal making units, Beauty & wellness products, moulded products, scaling up of emerging technologies, upgradation of existing small/medium/large units, Bamboo construction, Transport subsidy and Establishment of Centre of Excellence.
- xvii) Beneficiaries of Vibrant Villages and Patta Land Holders will be covered under MIDH scheme.

Activity mapping for effective devolution of funds, functions and functionaries under Mission for Integrated Development of Horticulture (MIDH)

A. MIDH Funds

S. No.	Scheme sub-component/ funding stream	Allocation (Rs. Cr.)	Percent Allocation based on function(s)						Remarks
			Centre	State	Local government			User group/civil society	
					District Panchayat	Intermediate Panchayat	Village Panchayat		
1.	NHM	As per annual budget	60	40	0.50-1.00		0.50-1.00		For community tanks, capacity building through HRD, FPO formation.
2.	HMNEH		90	10					
3.	NBM		60 90*	40 10*					
4.	NHB		100						Since projects will be implemented by the beneficiaries directly without routing funds through State Government, participation of local government will be to a limited extent in respect of these 3 sub schemes.
5.	CDB		100						
6.	CIH		100						

*In case of NE & Himalayan States.

Annexure I (contd.)

B. MIDH FUNCTIONS

S. No	ACTIVITY DESCRIPTION	Union Government	State Government	District Planning Committee	LOCAL GOVERNMENT AND PLANNING BODIES			User Groups. SHGs. etc.
	Activity Category				Panchayati Raj System			
					District Panchayat	Intermediate Panchayat	Village Panchayat	
1.	Setting Standards	Formulate guidelines and cost norms for implementation of MIDH scheme.	Disseminate guidelines and norms at District level, preferably in local language.	Disseminate guidelines of MIDH.	Disseminate guidelines at block level and below.			
2.	Planning	Provide framework for preparing State Horticulture Mission Document (SHMD) and Annual Action Plan.	1. Prepare strategic plan. 2. Prepare State Horticulture Mission Document. 3. Prepare State Annual Action Plans (AAP).	Formulate District Horticulture Mission Document (DHMD) and District Annual Action Plan (DAAP) Contribute in preparing DHMD and DAAP.	Contribute in (in selection of crop and activities) preparing DHMD and DAAP.		Contribute in selection of crop and activities.	
3.	Implementation of sub schemes and components. Planting material, production &productivity improvement programmers, HRD, infrastructure for PHM and Marketing etc.	Release of funds to States/ Agencies by DAFW.	Release of funds to District level and State level implementing Agencies.	Prioritize projects as per requirement of district.	Select location of activity within the district, select beneficiaries, implement specific projects.		Contribute in selection of beneficiaries and implement specific projects, as allocated.	Maintain assets created.
4.	Monitoring & Evaluation of Projects.	1. Review monthly progress through web enabled progress monitoring system. 2. Conduct midterm end Impact Evaluation.	1. Furnish monthly progress through web. 2. Conduct concurrent evaluation.		1. Review progress at panchayat level on specific activities. 2. Provide feed-back to State Government.		Provide feed back on progress to District Panchayat.	

C. MIDH FUNCTIONARIES

S. No.	Union Government	State Government	District Planning Committee	LOCAL GOVERNMENT & PLANNING BODIES		
				Panchayati Raj System		
				District Panchayat	Intermediate Panchayat	Village Panchayat
1.	Horticulture Division Staff, DA&FW	Staff of : a) State Horticulture Department, b) State Horticulture Mission, c) State Implementing Agencies, d) Contractual staff.	As constituted by the State Government.	State Govt. to devolve functionaries as per activities to be implemented under MIDH.		State Govt. to devolve functionaries as per activities to be implemented under MIDH.

Annexure II

Indicative composition of TSG under MIDH at National Level, State Level and District Level for 2021-22 to 2025-26

NATIONAL LEVEL			
S. No.	Items	Total	Honorarium* (in Rs.)
1.	Chief Consultant	5	1,20,000/-
2.	Consultant	8	80,000/- or Rs. 3000 per day need based.
3.	Resource Person	6	50,000/-
4.	Senior Programmer	6	65,000/-
5.	Data Entry Operator#	20	As per prevalent Government norms
6.	MTS#	15	As per prevalent Government norms

STATE LEVEL			
S. No.	Items	Total	Honorarium* (in Rs.)
1.	State Horticulture Consultant	As per requirement of the State and to be met from TSG at State Level within overall ceiling of Rs. 50.00 Lakhs.	80,000/-
2.	Horticulture Assistant		40,000/-
3.	Programmer		50,000/-
4.	Data Entry Operator\$		As per prevalent Government norms

DISTRICT LEVEL			
S. No.	Items	Total	Honorarium* (in Rs.)
1.	District Horticulture Consultant	As per requirement of the State and to be met from TSG at State Level within overall ceiling of Rs. 50.00 Lakhs per annum.	40,000/-
2.	Field Consultant		30,000/-

* It is the maximum ceiling of honorarium to be given under MIDH scheme

Should not be less than Minimum wages as notified by Delhi Government /Labour Department/State Government

\$ Should not be less than Minimum wages as notified by Labour Department of State Government

DELEGATION OF POWERS FOR APPROVING PROJECTS UNDER MIDH SCHEME*(Sub-Schemes of NHM, HMNEH, NBM and CIH) #***A. BY EXECUTIVE COMMITTEE (EC)**

S. No	Component/Category of Items	Total Project Cost (Rupees in lakh)
1.	Special Interventions	Above 100.00
2.	Mission Management / TSG Data base, Survey	Above 300.00
3.	Other Components not covered above	Project Based

B. BY EMPOWERED MONITORING COMMITTEE (EMC)

S. No	Component/Category of Items	Total Project Cost (Rupees in lakh)
1.	Planting material Infrastructure (Hi-tech Nursery, TC Unit)	Above 120.00
2.	Tissue Culture Unit	Above 250.00
3.	Seed Infrastructure	Above 300.00
4.	Import of planting material	Above 25.00
5.	Organic farming, Certification & GAP (to be submitted in project mode on cluster basis)	Above 200.00
6.	INM/IPM Infrastructure	Above 200.00
7.	Post Harvest Management infrastructures	Above 500.00**
8.	Centre of Excellence	Up to 1500.00**
9.	Special Interventions	Up to 100.00
10.	Need based projects (Seminars/ Workshops/ Exhibitions/ Training & Study Tours abroad, etc.)	Above 50.00 /project
11.	Mission Management/ TSG, Data base, survey, FPO	Up to 300.00 Subject to ratification by EC

* Maximum support of Rs. 50.00 Lakhs on project subject to prior approval of EMC.

**The decisions of EMC on projects costing more than Rs. 500.00 lakh to be placed before EC of ratification.

C. By Mission Director (MIDH)

S. No	Component/Category of Items	Total Project Cost (Rupees in lakh)
1.	If costs are as per norms specified in Annexure V/ VI.	Up to 10.00

Annexure III (contd.)

D. BY STATE LEVEL EXECUTIVE COMMITTEE (SLEC)

S. No	Component/Category of Items	Total Project Cost (Rupees in lakh)
1.	Planting material Infrastructure (Hi-tech Nursery, TC Unit)	Up to 120.00
2.	Tissue Culture Unit	Up to 250.00
3.	Seed Infrastructure	Up to 300.00
4.	Mushroom (in integrated mode i.e. Production + Spawn + Compost unit)	Up to 80.00
5.	Protected Cultivation	Up to 70.00
6.	Organic farming, Certification & GAP	Up to 200.00
7.	INM/IPM Infrastructure	Up to 200.00
8.	HRD (excluding international visits)	Up to 20.00
9.	Demonstration through KVK, SAU, ICAR etc.	Up to 25.00
10.	Post Harvest Management infrastructures	Up to 500.00
11.	Market Infrastructure	Up to 30.00
12.	Need based projects (Seminars/ Workshops/ Exhibitions) - Domestic	Up to 50.00/project

E. BY STATE MISSION DIRECTOR, SHM/ HMNEH/NBM

S. No	Component/Category of Items	Cost limit as per MIDH Scheme (Rupees in lakh)
1.	By State Mission Directors, if costs are as per MIDH norms.	Up to 5.00

Note: Projects of NHB and CDB will be approved by the respective Committees of these Boards.

Further, delegation of powers to be considered with the approval of GC.

FORMAT FOR SUBMITTING ACTION PLAN FOR NHM / HMNEH SUB-SCHEMES UNDER MIDH**Name of State: Name of Sub-Scheme: Year of Action Plan:****Summary Indicators:**

Area, Production & Productivity (APP) (Year 200)*

Sl. No	Crop	Area (000 ha)	Production (000 MT)	Productivity (t/ha)
1.	Fruits (a) Name of Perennial fruits (i) (ii) (b) Name of Non perennial fruits (i) (ii)			
2.	Vegetable Crops Name (i) (ii)			
3.	Spices (a) Name of Seed Spices (i) (ii) (b) Name of Rhizomatic Spices (i) (ii) (c) Name of Tree Spices (i)			
4.	Flowers (i) Loose flowers (ii) Bulbous flowers (iii) Cut flowers			
5.	Aromatic Plants Name (i) (ii)			
6.	Medicinal Plant (i) (ii)			
7.	Plantation crops Name (i) (ii)			
	Mushroom			
	Total			

(*This should be supported with the APP data for each district in the State.)

Annexure IV (a) (contd.)

SUMMARY OF ACTION PLAN:

Financial

(Rs. in Lakh)

Sl. No	Activity	Balance as on 01.04.200	Outlay as per action plan	Percentage of total
1.	Research & Development*			
2.	New Nurseries (No)			
3.	Additional coverage of area to be given crop wise (ha)			
4.	Rejuvenation (ha)			
5.	INM/IPM (ha)			
6.	Protected cultivation (ha)			
7.	Organic farming (ha)			
8.	Water sources (no)			
9.	Horticulture Mechanization (No)			
10.	Training of farmers (no)			
11.	PHM Infrastructures (no)			
12.	New Markets (no)			
13.	New Processing units (no)			
14.	Monitoring/TSG			
	Total			

*Confined to Applied Research

PHYSICAL: (QUANTIFIABLE MAJOR OUTPUTS) FOR THE YEAR:

Sl. No	Activity	Ha / No.	Sl. No	Activity	Ha /No.
1.	R&D projects		8.	Water sources (no)	
2.	New Nurseries (No)		9.	Horticulture Mechanization (No)	
3.	Additional coverage of area to be given crop wise (ha)		10.	Training of farmers (no)	
4.	Rejuvenation (ha)		11.	PHM Infrastructures (no)	
5.	INM/IPM (ha)		12.	New Markets (no)	
6.	Protected cultivation (ha)		13.	New Processing units (no)	
7.	Organic farming (ha)				
	Total			Total	

FORMAT FOR SUBMITTING DETAILED ACTION PLAN

Description

1. BACKGROUND INFORMATION

- 1.1 Geography & Climate
- 1.2 Potential of Horticulture
- 1.3 Land Availability
- 1.4 Strength, Weakness, Opportunity and Challenges (SWOC) Analysis
- 1.5 Nursery subplan indicating requirement and availability of planting material with mechanism in place to ensure quality and accreditation

2. PROJECT DETAILS

- 2.1 Objectives, Strategy & Road Map
- 2.2 Implementation Agency with contact address, phone & email ID
- 2.3 Salient aspects of the Annual Action Plan
- 2.4 Plantation Development including Supporting Infrastructure
- 2.5 Research & Development
- 2.6 Post Harvest Infrastructure and Management
- 2.7 Production of Planting Material
- 2.8 Establishment of New Gardens / Area Expansion
 - 2.8.1 Fruits (Perennial)
 - (a) Without integration
 - (b) With integration
 - 2.8.2 Fruits (NonPerennial)
 - (a) Without integration
 - (b) With integration
 - 2.8.3 Spices and Aromatic Plants
 - (a) Without integration
 - (b) With integration
 - 2.8.4 Flowers
 - (a) Without integration
 - (b) With integration
 - 2.8.5 Plantation crops

Annexure IV (a) (contd.)

(a) Without integration

(b) With integration

2.9 Rejuvenation/Replacement of Senile Plantation / Improvement & Existing stock

2.10 Protected Cultivation

2.11 Promotion of INM/IPM

2.12 Organic Farming with certification

2.13 Creation of water sources

2.14 HRD in Horticulture

2.15 Post Harvest Management Infrastructure

2.16 Marketing Infrastructure

3. MISSION MANAGEMENT

3.1 Technical Support Group

3.2 Base Line Survey

4. ANNEXURES

- I. Map of State and Districts indicating potential belt and location of existing infrastructure facilities like nurseries, TC units, seed infrastructure, INM/IPM infrastructure, pack houses, precooling units, ref. vans, ripening chambers, cold storage units, markets, processing units etc. and location of proposed infrastructure to be created.
- II. District wise area, production and productivity for major horticulture crops from 2004 05 onwards.
- III. District wise breakup of physical programme with identified cluster and crops.
- IV. Technical backstopping with identified institutes/agency.

Note: Suggestive percentage of activities to be included in the AAP:

Sl. No.	Activity	Percentage of AAP
1	Nursery & Planting Material	5 to 10 %
2.	Area Expansion	15 to 20 %
3.	Protected Cultivation	15 to 20 %
4.	PHM	25 to 30 %

FORMAT FOR SUBMITTING ANNUAL ACTION PLAN FOR NBM SCHEME

STATE: _____ YEAR _____

S. No.	Components	Estimated cost	Targets Proposed	
			Physical	Fin (Rs.in Lakhs)
A	A. Propagation & Cultivation			
1	Bamboo Nursery both in public and by private sectors including strengthen of existing (project based)			
i	Hi-tech (2 ha)			
ii	Big (1 ha)			
iii	Small (0.5 ha)			
iv	New Tissue Culture Unit			
v	Raising of Saplings in existing government TC nursery			
vi	Raising of Saplings in existing government Non-TC			
2	Plantation (Using certified planting material from the accredited/approved nurseries)			
3	Integrated Plantation with drip irrigation facility (using planting material from the accredited nurseries)			
4	Stock Improvement			
B	Primary Processing and Aggregation			
C	Innovative Interventions including manufacturing units			
D	Promotion and Development of Infrastructure for Bamboo Markets			
E	Development of tools, equipment & machinery			
1	Technological enhancement of indigenous tools, equipment & machinery			
2	Import of technologically superior tools, equipment & machinery in Common Facility Centre			
3	Centre of Excellence in thematic areas of the bamboo value chain including through bilateral cooperation			
F	Skill Development			
	Training of Farmers/ Artisans/ field functionaries/ International training/ visit for exposure of NBM staff/ field functionaries including farmers and entrepreneurs in bamboo sector to upcoming technologies/ Entrepreneurs Training			

Annexure IV (b) (contd.)

G	IEC (Information, Education & Communication)			
H	Research & Development of Bamboo Value Chain			
1	Mapping of resource base, market survey, certification, R&D, Bamboo construction & product design			
2	Maintenance of Bamboo setum for locational trials of commercially important species			
3	Bamboo based Business Incubation Centre Innovations in Bamboo /Design Development/ Product Based Technology Development			
I	Project Management (upto 2.5% of allocation)			
i	State/ BTSG Level: - Project management contingency Monitoring & Evaluation			

COST NORMS AND PATTERN OF ASSISTANCE UNDER MISSION FOR INTEGRATED DEVELOPMENT OF HORTICULTURE (MIDH) FOR NHM AND HMNEH SUB SCHEMES

Item	Cost Norms*	Pattern of Assistance#
A. RESEARCH	Rs.100.00 lakh/ project	Central Government Institutes under ICAR, CSIR, SAUs, National Level Govt. Agencies and other location specific Institutes will submit the project to the Ministry for taking up need based applied research & development works in the areas of (i) Seed & Planting material (ii) Technology standardization (iii) Technology acquisition and (iv) Imparting training and FLD, on project mode, with 100% assistance.
B. PLANTATION INFRASTRUCTURE DEVELOPMENT		
B.1 Production of Planting Material		
i. Large Nursery (1 to 2 ha)	Upto Rs. 30 lakhs/ Ha Cost of large nursery on pro rata basis: 1 ha - 30.00 lakh 2 ha - 30.00 lakh x 2	Assistance @ 100% to public sector and @ 40% to private sector for an area from 1 to 2 ha as project based activity, on pro-rata basis. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, the lower limit of area will be 0.5 ha Each nursery will produce a minimum of 50,000 plants per hectare per year of mandated perennial fruit plants, tree spices, aromatic plants, plantation crops, perennial flowers etc. duly certified for its quality. Accreditation of each Hi Tech nursery will be mandatory within 18 months from the date of release of last instalment.
ii. Small Nursery (0.4 to 1 ha)	Rs. 20 lakhs/Ha	Assistance @ 100% to public sector and @ 50% to private sector for an area from 0.4 to 1 ha as a project based activity, on pro rata basis. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, the lower limit of area will be 0.4 ha Each nursery will produce a minimum of 25,000 plants per ha of mandated perennial fruit plants, tree spices, aromatic plants, plantation crops, perennial flowers etc. per year, duly certified for its quality. Accreditation of each small nursery will be mandatory within 18 months from the date of release of last instalment.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
iii. Upgrading nursery infrastructure to meet accreditation norms (upto 2 ha)	Need based upto a maximum of Rs. 4.00 lakh/ha	Assistance @ 100% to public sector and @ 50% to private sector for a nursery of an area upto 2 ha on pro-rata basis. The infrastructure facilities will include establishment of Hot bed sterilization of media, Working shed, Virus indexing facility (for citrus & apple), Hardening chamber/net house, Mist chamber, Establishment of Mother Block, Irrigation and Fertigation facility/unit. Accreditation of each upgraded nursery will be mandatory within 18 months from the date of release of last installment.
iv. Setting up new TC unit	Project based upto Rs 250 lakh per project for a capacity of 25 lakh plants or on pro-rata basis for minimum 10 lakh plants.	Assistance @ 100% to public sector and in case of private sector, credit linked back-ended assistance @ 40% as project based activity. Each TC unit will produce a minimum of 10 lakh plants/year or on pro rata basis for higher capacity upto 25 lakh plants/unit of mandated crops, duly hardened, for which protocols are available for commercial use. Accreditation of each TC lab will be mandatory within 18 months from the date of receipt of last instalment.
v. Hi-tech Plug Type Nursery under controlled conditions with automated tray seeder unit	Project based for an area from 0.2 to 1 ha @ Rs. 1200 per Sq.m. on pro rata basis.	Assistance @ 100% to public sector and in case of private sector, credit linked back-ended assistance @ 50% as project based activity. Each Plug type nursery will produce a minimum of 80000 plugs (4 cycles of 20,000 plugs each) of mandated crops per 100 Sq.m. per year.
vi. Seed Production for Vegetables and Spices		
a) Open pollinated crops (1 to 2 ha)	Rs 50,000 /ha	Assistance @ 100% to public sector and in case of private sector assistance @ 35% in general areas and @ 50% in NE & Himalayan States, Scheduled areas, Andaman & Nicobar and Lakshadweep Islands for an area from 1 to 2 ha on pro rata basis. However, in case of vibrant villages the lower limit of area will be from 0.5 ha Output target of seed production for each crop will be fixed by the individual State for each beneficiary before releasing funds.
b) Hybrid Seeds (1 to 2 ha)	Rs. 1.80 lakh/ha	Assistance @ 100% to public sector and in case of private sector assistance @ 35% in general areas and @ 50% in NE & Himalayan States, Scheduled areas, Andaman & Nicobar and Lakshadweep Islands for an area from 1 to 2 ha on pro rata basis. However, in case of vibrant villages the lower limit of area will be from 0.5 ha Output target of seed production for each crop will be fixed by the individual State for each beneficiary before releasing funds.

Item	Cost Norms*	Pattern of Assistance#
vii. Import of planting material, mother block for mass multiplications.	Project based for a project cost upto Rs. 150 lakh/year.	Assistance @ 100% to State Govt. / Public Sector and in case of FPOs, FIGs, SHGs and Cooperatives credit linked subsidy @ 50% to SHGs as project-based activity. Royalty @ 50% upto maximum of Rs. 1/plant upto a maximum subsidy of Rs. 25 Lakhs will be provided.
viii. Seed Infrastructure (for handling, processing, packing & storage etc. of seeds meant for use as seed material for cultivation of horticulture crops.	Project based for a project cost upto Rs. 300 lakh/project.	Assistance @ 100% to State Govt. / Public Sector and in case of private sector, credit linked subsidy @ 50% including FPOs, FIGs, SHGs and Cooperatives as project based activity.

B. 2 Establishment of New Gardens (Area expansion- for a maximum area of 2 ha per beneficiary).

Note: The component is to be integrated with drip and in case drip is not proposed under MIDH scheme, then it should be converged with other scheme.

I. FRUITS

COST INTENSIVE CROPS

i) Fruit crops like Grape, Kiwi, Passion fruit, Strawberry, Dragon fruit, Datepalm etc.

Without drip Irrigation (Drip should be in convergence with other schemes)	I. Strawberry Rs. 2.00 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis
	II. Kiwi, Passion fruit, Dragon fruit with support system Rs. 6.75 lakh/ha for Dragon fruit Rs. 2.75 lakh/ha for Passion fruit Rs. 2.50 lakh/ha for Kiwi	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material, cost of material for trellis and other support systems, in 2 instalments of 60:40 subject to survival rate of 80% in 2nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
	III. Grape Rs. 3.00 lakh/ha including support system	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material, cost of material for trellis other support systems, in 2 instalments of 60:40 subject to survival rate of 80% in 2nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
	IV. Datepalm (Tissue culture) Rs. 4.00 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other support systems, in 2 installments of 60:40 subject to survival rate of 80% in 2nd year. The planting material should be certified as Tissue Culture planting material. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
a) With drip irrigation	As per PDMC norms	In addition to basic cost norms i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
ii. Banana and Pineapple (By Suckers)		
a) Without drip Irrigation (drip should be in convergence with other schemes)	Rs. 1.10 Lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost in 2 instalments of (60:40) subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
b) With drip irrigation	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
iii) Banana and Pineapple (By Tissue Culture)		
a) Without integration (drip should be in convergence with other schemes)	Rs. 1.75 lakh/ha	Assistance @40% in general area for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost of in 2 instalments (60:40) subject to survival rate of 80% in 2 nd year. The planting material should be certified as Tissue Culture planting material. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.

Item	Cost Norms*	Pattern of Assistance#
b) With drip irrigation.	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
Fruit crops other than cost intensive		
(i) Fruit crops like Avocado, Rambutan, Persimmon, Durian, Apricot, Pear, Peach, Plum, Cherry, Blueberry, Fig, Mangosteen etc.		
a) Without drip Irrigation (drip should be in convergence with other schemes)	Rs. 1.25 lakh/ha	Assistance @ 40% in general area for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis
b) With drip irrigation	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
(ii) Fruit crops like—Papaya, Phalsa, Sapota, Tamarind, Jamun, Bael, Karonda, Ber, Jackfruit, Khirni, Custard apple, Amla, Seabuckthorn, Garcinia, Hanuman phal (Soursop), Carobmola, Jackfruit etc.		
a) Without drip Irrigation (drip should be in convergence with other schemes)	Rs. 75,000/ha	Assistance @ 40% in general area for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis
b) With drip irrigation	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
New orchards of Apple, Mango, Guava, Litchi, Pomegranate, Citrus etc.		

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
a) Without drip irrigation (drip will be in convergence with other schemes)		
(i) Regular spacing	Rs. 1.25lakh/ha	Assistance @ 40% in general area for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input costing 2 instalments of 60:40 subject to survival rate of 80% in 2nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro-rata basis.
(ii) High Density (Other than Apple)	Rs. 2.00 lakh/ha	
(iii) High Density for Apple with support system (Minimum 2222 plants per ha)	Rs. 5.00 lakh/ha	
(iv) Ultra high density (Other than apple)	Rs. 3.00 lakh/ha	
(v) Ultra high density for Apple with support system (Minimum 3333 plants per ha)	Rs. 7.50 lakh/ha	
b) Integrated with drip irrigation	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
II. Vegetables (For maximum area of 2 ha per beneficiary)		
Hybrid vegetables (Tomato, Colocasia, Bottle gourd, Squash, Zucchini, Bitter Gourd, Cauliflower, Cabbage, Broccoli, Drumstick, Brussels, sprouts, French beans, Fabia beans, Peas green, Brinjal / Aubergines, Okra, Capsicum, Melons, Cucumber, Green Chillies, Carrot, Beet root, Turnip, Radish, Knol kohl, Kale, etc.)	Rs. 60,000/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro-rata basis in single instalment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis. In case of vibrant villages assistance will be @ 80% of the maximum cost.
Open pollinated Onion, Garlic, Leafy vegetables and other vegetables which are open pollinated in nature.	Rs. 50,000/ ha	Assistance @ 40% in general areas for an area upto 2 ha on pro-rata basis in single instalment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis. In case of vibrant villages assistance will be @ 80% of the maximum cost.

Item	Cost Norms*	Pattern of Assistance#
III. Mushroom cultivation		
(a) Production Unit	Rs. 30 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy upto a maximum production capacity of 50 MT on pro rata basis. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50%.
(b) Spawn making unit	Rs. 20 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50%
(c) Compost making Unit	Rs. 30 lakh/unit	100% of the cost to public sector and 40% of cost for private sector, for meeting the expenditure on infrastructure, as credit linked back ended subsidy. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50%.
(d) Low Cost/ Small Scale mushroom production unit	Rs. 2.00 Lakhs per unit for a structure of size of 200 sqft unit	Assistance @ 50% per unit for meeting expenditure on infrastructure and inputs subject to a maximum of 5 units per beneficiary.
IV. Flowers (For a maximum area of 2 ha per beneficiary)		
i. Cut Flowers	Rs. 1.25 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro-rata basis
ii. Bulbous and Rhizomatic Flowers (Gladiolus, Lily, Daisy, Gerbera, Tuberose and Saffron etc.)	Rs. 2.50 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
iii. Loose Flowers (Rose, Chrysanthemum, Tuberose, Jasmine, Crossandra, Marigold, Gailardia, Lotus, Neerium, Hybiscus, Barleria etc.)	Rs. 50,000 /ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
V. Spices (For a maximum area of 2 ha per beneficiary)		
i. Seed Spices (Ajwain, Aniseed, Caraway, Celery, Coriander, Cumin, Dill, Fennel, Fenugreek, Nigella, Poppy, Black Cumin etc.)	Rs. 50,000/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
ii. Rhizomatic and bulbous Spices (Ginger, Turmeric, and Garlic)	Rs. 1.00 Lakh/ ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
iii. Perennial Spices (Black Pepper, Cinnamon, Cassia, Clove, Nutmeg, Kokum, Cambodge, Tamarind, Vanilla Cardamom, Allspice, Curry leaf, Star anise, Bay leaf etc.)	Rs. 1.00 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro-rata basis.
VI. Aromatic and Medicinal Plants (For a maximum area of 2 ha per beneficiary)		
(i) Cost intensive aromatic plants (Rose, Rosemary, Tuberose, Geranium, Chamomile, Sandalwood, Davana, Jasmine, Lavender etc.)	Rs. 1.25 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
(ii) Other aromatic plants (Palmarosa, Lemongrass, Vetiver, Java Citronella, Sweet Basil, mentha etc.)	Rs. 50,000/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.

Item	Cost Norms*	Pattern of Assistance#
(iii) Medicinal plants (Mulethi, Shatavari, Kalihari, Shwet Musali, Guggule, Manjishtha Kutki, Atees, Jatamansi, Ashwagandha, Brahmi, Tulsi, Vidarikand, Pippali, Chirata, Pushkarmool)	Rs. 1.50 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and cost of material for INM/IPM etc. in one installment. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
VII. Plantation crops (For a maximum area of 2 ha per beneficiary). The component is to be integrated with drip in case drip is not proposed under MIDH scheme, then it should be converged with other scheme		
(A) CASHEW AND COCOA		
(a) Without drip Irrigation	Rs. 75,000 /ha	Assistance @40% in general areas for an area upto 2 ha on pro-rata basis for meeting the expenditure on planting material and other input cost of in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
(i) Regular Spacing (drip should be in convergence with other schemes)		
(b) With Intercropping	Rs. 50,000 /ha	Assistance @ 40% in general areas for an area upto 2 ha on pro-rata basis for meeting the expenditure on planting material and other input cost of in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
(ii) High Density (Minimum 400 plants per hectare) (Cashew Only)	Rs. 1.5 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost of in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro-rata basis.
(b) With drip irrigation	As per PDMC norms	In addition to basic cost i.e. without drip irrigation as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
(B) NEW ORCHARDS OF ALMOND AND WALNUT		
a) Without drip irrigation (drip should be in convergence with other schemes)	Almond: Rs. 3.00 lakh/ha Walnut: Rs. 4.00 lakh/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro rata basis for meeting the expenditure on planting material and other input cost of in 2 instalments of 60:40 subject to survival rate of 80% in 2 nd year. In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro rata basis.
b) With drip irrigation	As per PDMC norms	In addition to basic cost i.e. without integration as mentioned above, assistance for establishment of drip irrigation system would be available as per the PDMC norms to all States including NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
Addon Component: Automated Weather Station	Rs. 40,000/ha	Assistance @ 50% of the cost. Note: The component is applicable for all crops under area expansion
B.3 Rejuvenation/ replacement of senile plantation, canopy management		
(i) Removal of dead /dying/ old plants	Rs. 10,000/ha	Assistance @ 40% in general areas for an area upto 2 ha on pro-rata basis
(ii) Top-working and gap filling with new plant	Rs. 10,000/ha	In the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands, assistance will be @ 50% for an area upto 2 ha on pro-rata basis
(iii) Cost of input towards nutrient management, pest management and irrigation	Rs. 40,000/ha	
B.4 Creation of Water resources		
a) Water Harvesting Structures for Community– Construction of on farm community tank, pond /reservoirs with use of plastic/RCC lining	Rs. 24.00 lakh per unit @ Rs 80 per cubic metre in general areas and Rs 30 lakh/ per unit @ Rs 100 per cubic metre for NE & Himalayan States, TSP and Scheduled areas, Andaman & Nicobar and Lakshadweep Islands for a maximum capacity of 30,000 cub mts.	Assistance @ 75% to irrigate 10 ha of command area, for a storage capacity of 30,000 cubic meter and for smaller capacity on pro-rata basis depending upon the command area either with use of minimum 500-micron plastic films or RCC/HDPE lining; owned & managed by a community/ farmer group. Cost for non-lined ponds/tanks (only in black cotton soils) will be 30% less. Assistance will be restricted to the cost of plastic/RCC lining. However, for non MNREGA beneficiaries, assistance on entire cost including construction of pond/tank as well as lining can be availed under the scheme.

Item	Cost Norms*	Pattern of Assistance#
b) <i>Water Harvesting Structure for Individuals – Construction of on farm ponds/ tanks etc with use of plastic/ RCC lining</i>	Rs. 1.80 lakh/unit in plain areas and Rs. 2.15 lakh/unit for NE & Himalayan States, TSP and Scheduled areas, Andaman & Nicobar and Lakshadweep Islands	50% of cost including 300-micron plastic/ RCC lining. Cost for non-lined ponds/tanks (only in black cotton soils) will be 30% less. For smaller size of the ponds/dug wells, cost will be admissible on pro rata basis depending upon the command area. Maintenance will be ensured by the beneficiary
c) Construction of tube-well/ bore well (This component will be considered only in integration with other components)	Rs. 1.80 lakh/unit in plain areas and Rs. 2.15 lakh/unit for NE & Himalayan States, TSP and Scheduled areas, Andaman & Nicobar and Lakshadweep Islands	Assistance @ 50% of the cost.
d) Flexible Water Storage Tank (This component will be considered only in integration with other components)	At the rate of Rs. 0.8/litre for a capacity upto 10,000 litres.	Assistance @ 50 % as per prescribed norms for different capacities on pro-rata basis upto a max capacity of 50,000 litres/beneficiary in NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands only.
B.5 Protected cultivation		
1. Poly house/ Hybrid/ Retractable structures		
(a) Fan & Pad System	Rs. 1800/Sq.m. (up to area 500 Sq.m.) Rs. 1600/Sq.m. (>500 Sq.m. up to 1008 Sq.m.) Rs. 1500/Sq.m. (>1008 Sq.m. up to 2080 Sq.m.) Rs. 1450/Sq.m. (>2080 Sq.m. up to 4000 Sq.m.) Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.

Annexure V (contd.)

Item		Cost Norms*	Pattern of Assistance#
(b) Naturally ventilated system			
i. Tubular/ Structure	Rectangular	Rs.1200/Sq.m.(up to area 500 Sq.m.) Rs. 1050/Sq.m. (>500 Sq.m. up to 1008 Sq. m) Rs. 1000/Sq.m. (>1008 Sq.m. up to 2080 Sq.m.) Rs. 950/Sq.m. (>2080 Sq.m. up to 4000 Sq.m.) Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
ii. Bamboo/Cable structure	purlin	Rs 450/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas. In case of Bamboo structure, assistance will be limited to 20 units per beneficiary and size of the each unit not to exceed 200 Sq.m.
2. Shade Net/Agro Textile Net House			
(a) Tubular structure	/Rectangular	Rs 710/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas
(b) Bamboo structure	/Cable purlin	Rs. 450/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas. In case of Bamboo structure, assistance will be limited to 20 units per beneficiary and size of each unit not to exceed 200 Sq.m.
3. Plastic/Non woven cloth Tunnels		Rs. 80/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.

Item	Cost Norms*	Pattern of Assistance#
4. Walk in tunnels	Rs. 720/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum of 5 units per beneficiary (each unit not to exceed 800 Sq.m.)
5. Anti Bird/Anti Hail Nets	Rs. 50/ Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 10000 sq.m. per beneficiary or on pro-rata basis for smaller areas.
6. Cost of planting material & cultivation of high value fruits and vegetables grown in poly-house/ shade net house	Rs 150/ Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas. Crops like Capsicum, Cucumber, Muskmelon, Tomato, Broccoli, Parsley, Celery and other crops approved by Research Institutions may be considered for assistance.
7. Cost of planting material & cultivation of Orchid and Anthurium under poly house/shade net house	Rs 700/ Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
8. Cost of planting material & cultivation of Carnation & Gerbera grown in Poly house/ shade net house.	Rs. 600/Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
9. Cost of planting material & cultivation of Rose, Chrysanthemum and Lilum grown in Poly house/ shade net house.	Rs 450/ Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
10. Mulching Plastic/Jute/ Agro textile/any other biodegradable material (Specifications as per BIS grade or prescribed by Ministry of Textiles)	Rs 40,000/ha Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% subject to a maximum of 2 ha per beneficiary or on pro-rata basis for smaller areas.
11. Add on Components:		
i. Hydroponics and Aeroponics	Rs. 350/ Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 1000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
ii. Circulation Fans in poly house only	Rs. 5000 per fan. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum of 6 fans for a maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
iii. Sensor based Automation System for fertigation	Rs. 4 lakh/unit Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% per unit per beneficiary for maximum area of 4000 Sq.m. per beneficiary under protected cultivation.
iv. Support system for vegetable crops	Rs. 0.20 Lakhs per ha Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for all farmers for a maximum area of 2 Ha per beneficiary or on pro-rata basis for smaller areas.
v. Permanent Support Structures for Anti hail/ Anti bird nets	Rs. 20 per Sq.m. of covered area Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for a maximum area of 2 ha per beneficiary or on pro-rata basis for smaller areas.

Item	Cost Norms*	Pattern of Assistance#
vi. Fencing (This component will be considered only in integration with other components of MIDH Scheme)	Rs. 300 per running metre Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% subject to a maximum of 1000 running metres per beneficiary. The component should consist of 4 running lines with iron poles having distance of 10 feet between the poles.
vii. Fruit/Bunch cover (Paper /Non-woven/woven cover/ Paper bags etc. (Note: Woven cover should be of BIS grade)	Rs. 0.50 lakh/ha Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for all farmers for maximum area of 2 ha per beneficiary or on pro-rata basis for smaller areas.
viii. Weed Mat (Note: Should be of BIS grade)	Rs. 50 per Sq.m. Above rates will be 15% higher in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.	Assistance @ 50% for all farmers for maximum area of 4000 Sq.m. per beneficiary or on pro-rata basis for smaller areas.
B. 6 PFDCs	Project based	Assistance @ 100% to PFDCs
B.7 Promotion of Integrated Nutrient Management (INM)/Integrated Pest Management (IPM)		
i) Promotion of INM/IPM	Rs. 5,000/ha	Assistance @ 30% for an area upto 2 ha per beneficiary or on pro-rata basis for smaller areas.
ii) Plant Health Clinics	Rs. 25.00 lakh/unit	Assistance @ 100% to Public sector and @ 50% to private sector
B.8 Organic Farming		
i. Adoption of Organic farming	As per PKVY norms	Assistance for adoption of Organic farming would be available as per PKVY norms for an area upto 2 ha per beneficiary or on pro-rata basis for smaller areas to all States including NE & Himalayan States, TSP and Scheduled areas, Andaman & Nicobar and Lakshadweep Islands.
ii. Organic Certification	As per PKVY norms	Assistance for Organic Certification would be available as per the PKVY norms to all States including NE & Himalayan States, TSP and Scheduled areas, Andaman & Nicobar and Lakshadweep Islands.
iii. Vermi compost Units/ organic input production	Rs.1,00,000/unit for permanent structure and Rs. 16,000/unit for HDPE Vermibed.	Assistance @ 50% conforming to the size of the unit of 30'x8'x2.5' dimension of permanent structure. For HDPE Vermibed, @ 50% conforming to the size of 96 cft (12'x4'x2') and IS 15907:2010

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
B.9 Adoption and Certification for Good Agricultural Practices (GAP) /Bharat GAP	Rs. 20,000/ha	Assistance @ 50% subject to a maximum of 2 ha/ beneficiary or on pro-rata basis for smaller areas.
B.10 Centre of Excellence for Horticulture Crops	Rs 1500.00 Lakh/ centre	Assistance @ 100% to public sector. This can be established in technical collaboration under bi-lateral co-operation also.
B.11 Pollination support through beekeeping		
i. Production of nucleus stock (Public Sector)	Rs. 20.00 Lakh	100% of the cost
ii. Production of bee colonies by bee breeder.	Rs. 10.00 Lakh	40% of cost for producing min. of 2000 colonies / year
iii. One unit of Bee Hives/ Boxes of 8 frames with bee colonies	As per KVIC norms or Rs. 4000/- per Bee Hive/Box whichever is lower.	40% of cost limited to 50 colonies / beneficiary.
iv. Bee Hive	Rs. 2,000 per hive	40% of cost limited to 50 colonies / beneficiary
v. Equipment including honey extractor (4 frame), food grade container (30 kg), net, including complete set of Bee keeping equipment.	Rs. 20,000/set	40% of the cost limited to one set per beneficiary.
B. 12. Horticulture Mechanization (Standalone machinery/equipment will not be permissible)		
i. Tractor		
a) Tractor (upto 20 PTO HP) 2 WD	As per SMAM norms	As per SMAM norms
(b) Tractor (upto 20 PTO HP) 4 WD	As per SMAM norms	As per SMAM norms
ii. Power Tiller		
a) Power tiller (upto 8 BHP)	Rs. 1.0 Lakh/Unit	Subject to a maximum of Rs. 0.40 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers and beneficiaries in NE states, subject of a maximum of Rs. 0.50 lakh/unit.
b) Power tiller (above 8 BHP)	As per SMAM norms	As per SMAM norms
iii). Plant Protection Equipments		
(a) Manual Sprayer-Knapsack/ Foot operated sprayer	As per SMAM norms	As per SMAM norms
b) Powered Knapsack sprayer/Power Operated Taiwan sprayer (capacity 8 - 12 lts)	As per SMAM norms	As per SMAM norms

Item	Cost Norms*	Pattern of Assistance#
c) Powered Knapsack sprayer/Power Operated Taiwan sprayer (capacity above 12- 16 lts)	As per SMAM norms	As per SMAM norms
d) Powered Knapsack sprayer/ Power Operated Taiwan sprayer (capacity above 16/lts)	As per SMAM norms	As per SMAM norms
(e) Tractor Operated sprayer (boom type)	As per SMAM norms	As per SMAM norms
(f) Tractor Operated Sprayer (air carrier/ assisted)	As per SMAM norms	As per SMAM norms
(g) Tractor Operated Electrostatics Sprayer	As per SMAM norms	As per SMAM norms
(h) Eco Friendly Light Trap	As per SMAM norms	As per SMAM norms
iv) Import of new machines & tools for horticulture for demonstration purpose	Upto a maximum of Rs. 100.00 lakh per unit	Assistance @ 100% of the total cost only to public sector and @ 50% for private sector for Farmers group/FPOs/FIGs
B.13. Technology Dissemination through Demonstration /Front Line Demonstration	Rs. 25.00 lakh	Assistance @ 75 % in farmers field and @ 100% in farms belonging to Public Sector, ICAR, SAUs etc.
B.14. Human Resource Development (HRD)		
i) HRD for Gardeners	Rs. 15.00 lakh/unit	100% of the cost.
ii) Training for Supervisors, Gardeners and Agri/ Horti Entrepreneurs as per approved courses of Training Institute/ Agriculture Skill Council of India (ASCI) for Horticulture sector.	Assistance @ 100% as per cost norms of Training Institutes/ASCI	Assistance @ 100% as per cost norms of Training Institutes/ASCI
iii) Training/Exposure visit of farmers		
a) Within State	Rs. 1,000/day per farmer including transport	Assistance @100% of the prescribed cost norms. For a maximum period of 5 days
b) Outside State	Project based as per actuals	Assistance @ 100% as per actuals. For a maximum period of 7 days including journey time
c) Outside India	Upto a maximum of Rs. 2.00 lakh/participant	Project Based. Assistance @ 100% of economic air/ rail travel. Course fee cost to be funded under Mission Management. (Proposal will be considered and approved by MIDH Division, DA&FW Only)
iv) Training / Study tour of Officers/Technical staff/ Field functionaries		

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
a) Within the State	Rs.300/day per participant plus TA/ DA, as admissible	Assistance @ 100% of the prescribed cost norms.
b) Study tour to outside States/UTs (group of upto 5 participants)	Rs.1,000/day per participant plus TA/ DA, as admissible	Assistance @ 100% of the prescribed cost norms.
c) Outside India	Upto a maximum of Rs. 3.50 lakh per participant as per actual.	Project Based. Assistance @ 100% of economic air/ rail travel. Course fee cost to be funded under Mission Management. (Proposal will be considered and approved by MIDH Division, DA&FW Only)
C. INTEGRATED POST HARVEST MANAGEMENT		
C.1 FARM GATE PACKHOUSE with Movable Handling Trolley, Sorting Table and Farm Gate Standalone Cold Storage	Upto a maximum of Rs. 25.00 lakh/unit with size of 9MX6M per beneficiary. However, actual cost would be derived based on the option/technology chosen depending upon component selection as per NCCD guidelines.	Assistance @ 50% admissible only. Note: the component has to be implemented in accordance to NCCD guidelines only The procurement will have a specific condition of defect liability of 5 years by supplying and installing agency during which AMC will be provided and it will be assured by the supplier that the facility is functional. Accordingly, 20% of the payment should be done at end of 5 years as part of back ended subsidy.
C.2 INTEGRATED PACK HOUSE with facilities of size 18m x 22m with conveyor belt sorting, grading, washing, drying, weighing scale, HPT, Stacking (crates), Dock Leveler System, Precooling (if required)#, cold room transit and Reefer van # This is add-on component and is provided need based only in integrated mode.	Upto a maximum of Rs 160.00 lakh per beneficiary. However, actual cost would be derived based on the component/option chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: the component has to be implemented in accordance to NCCD guidelines only

Item	Cost Norms*	Pattern of Assistance#
C.3 COLLECTION AGGREGATION CENTRE with facilities of size 22m x 26m with conveyor belt sorting, grading, washing, drying, weighing bridge, Automated computerised system, HPT, BOPT, Stacking (crates), Dock Leveler System, Precooling (if required)# and cold room transit. # This is add-on component and is provided need based only in integrated mode.	Upto a maximum of Rs 320.00 lakh per beneficiary. However, actual cost would be derived based on the component/option chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: the component has to be implemented in accordance to NCCD guidelines only
C.4 Pre-cooling unit	Upto a maximum cost of Rs. 5 Lakh/MT.	Back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: the component has to be implemented in accordance to NCCD guidelines only
C.5 Mobile pre-cooling unit	Rs. 30.00 lakh	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
C.6 Cold Rooms		
i. Cold Rooms (Staging)	Upto a maximum cost of Rs. 52.00 lakh.	Back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
ii. Solar Power Cold Room	May be taken on standalone basis as proposed in C1, C2, C3 and C6.	Back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
C.7 Cold Storage Type- I (CS-1)		
i) Cold Storage Type-I is defined as CS-1 with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mezzanine structure (For other component details please refer to NCCD guidelines)	Rs. 9,600/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
ii) Cold Storage Type-I is defined as CS-1 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mezzanine structure (For other component details please refer to NCCD guidelines)	Rs. 12,000/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
iii) CO ₂ scrubber (need/produce based), unified control system, doors, material conveying/hoist system, Automated computerised system, HPT, BOPT and dock leveller system (Applicable for Cold storage units Type 1 only)	Upto Max cost of Rs. 50.00 lakh/ project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Item	Cost Norms*	Pattern of Assistance#
C.8 Cold Storage Type- I-Onion (CS-1-Onion)		
i) Cold Storage Type-I-Onion is defined as CS-1-Onion with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mezzanine structure (For other component details please refer to NCCD guidelines)	Rs. 9,600/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
ii) Cold Storage Type-I-Onion is defined as CS-1-Onion with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mezzanine structure (For other component details please refer to NCCD guidelines)	Rs. 12,000/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
iii) CO ₂ scrubber, unified control system, ventilation system, specialised stacking system, material conveying/ hoist system, doors, Automated computerised system, HPT, BOPT and dock leveller system (Applicable for Cold storage units Type 1-onion only)	Upto Max cost of Rs. 278.00 lakh/ project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
C.9 Cold Storage Type- II (CS-2)		
i) Cold Storage Type-II is defined as CS-2 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mezzanine structure	Rs. 12,000/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
ii) CO ₂ scrubber (need/produce based), unified control system, material conveying/hoist system, doors,HPT,BOPT and dock leveller system, Stacking system, high reach handling equipment and Automated Computerised System with Labelling and Traceability System (Applicable for Cold storage units Type 2 only)	Upto Max cost of Rs. 195.00 lakh/ project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
C.10 Cold Storage Type- II-CA (CS-2-CA)		
v) Cold Storage Type-II with CA is defined as CS-2-CA with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazzenine structure (For other component details please refer to NCCD guidelines)	Rs. 12,000/MT for a maximum capacity of 5,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Item	Cost Norms*	Pattern of Assistance#
ii) CA Other components: Details of the components are described in NCCD guidelines.	Upto Max cost of Rs. 940.00 lakhs/project (Max. subsidy for CA store may not exceed more than 900 Lakhs including additions) The actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
C.11 Cold Storage Type- IV (CS-4)		
i) Cold Storage for dry spices & raisins is defined as CS-4 with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	Rs. 9,600/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
ii) Cold Storage for dry spices & raisins, MFP, etc. is defined as CS-4 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	Rs. 12,000/MT, (Max 5,000 MT capacity)	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
iii) Conveying/ hoist system, doors, HPT, BOPT and dock leveller system (Applicable for Cold storage units for dry spices and raisins)	Upto Max cost of Rs. 31.00 lakh/ project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
C.12 Technology induction/modernization of Cold Storage	1. Max. Rs. 125.00 lakhs (where 5.00 Lakhs/project is for Unified Control System) but not more than Rs. 3,000/MT of the cold store capacity for modernization of refrigeration	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands 50% of the invoice value or maximum of Rs. 60,000 per project or whichever is less. (This can be availed as Standalone Component)
1. Modernisation (Refrigeration & Unified Control System)	2. Max. Rs. 120.00 lakhs but not more than Rs. 1,800/MT for modernization of insulation respectively.	50% of the invoice value or maximum of Rs. 1.75 lakh per project or whichever is less. (This can be availed as Standalone Component)
2. Modernisation (Insulation)	3. Max. Rs. 1.20 lakh/project for modernization of refrigerant gases but not more than Rs. 2,000/kg for Refrigerant gases having GWP in range 500-1,000 and Rs. 1,400/kg for Refrigerant gases having GWP in range 1,000-1,500.	50% of the invoice value or maximum of Rs. 1.75 lakh per project or whichever is less. (This can be availed as Standalone Component)
3. Modernisation (Synthetic Refrigerants)	4. Max. Rs. 3.50 lakh/project for Automated Computerized System with software for generating QR/Bar code labelling, farmers details, date of arrival, variety of the crop at the arrival of facility (Labelling and Traceability System)	50% of the invoice value or maximum of Rs. 21.75 lakh per project or whichever is less. (This can be availed as Bundle all Components a, b, c)
4. Modernisation (Automated Computerised System with Labelling and Traceability System)	5. Max. Rs. 43.50 lakh/project for Alternate Technology bundle, which includes: a. Vapour Absorption/ Phase Change Material (PCM)/ Solar PV panels/ Solar Thermal System. b. Labelling and Traceability System	50% of the actual cost or 50% of the Rs. 5.00 lakh whichever is lower, for availing Unified Control System, with capping of maximum subsidy to Rs. 2.50 lakhs (This can be availed as Standalone Component)
5. Modernisation (Bundle Component)		
6. Modernisation (Unified Control System)		

Item	Cost Norms*	Pattern of Assistance#
	c. Unified Control System *Unified Control System can be availed as a standalone component with Max. of Rs 5.00 Lakh /project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines	
C.13 Refrigerated Transport vehicles	For the purpose of calculation Rs. 3.45 lakhs/MT would be considered. The cost would be calculated on the per MT basis from 4MT upto max. of 14MT. However, actual cost would be derived based on quantity, technical guidelines etc. chosen as per prescribed norms etc. in NCCD guidelines 2025.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands Note: Component has to be implemented in accordance to NCCD guidelines only
C.14 Primary/ Minimal Processing Unit (This component will be considered only integrated with other components of MIDH Scheme)	Rs. 35.00 lakh/unit	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
C.15 Ripening Chamber also termed as CS-3		
i) Non-Pressurized Ripening Chamber also termed as CS-3	Rs 1.00 lakh/MT	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands
ii) Pressurised Ripening Chamber also termed as CS-3	Rs. 1.20 lakh/MT	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
C.16 Low-cost Onion/Garlic storage structure (metallic)	Upto Rs. 8,000/MT	Back-ended assistance @ 50 % for a unit of the size from 5 to 1,000 MT capacity on pro rata basis in all areas throughout country as per following details: 5-25 MT - 8,000/MT 25-500 MT – 7,000/MT 500-1,000 MT - 6,000/MT (Assistance will be credit linked in case if project cost is more than Rs. 30.00 lakh)
C.17 Pusa Zero energy cool chamber (100 kg)	Rs 4,000 per unit	50 % of the total cost
C.18 Solar Crop Dryer (with 24 Hrs. Backup)	Rs. 2.50 lakh/unit of 70 kg capacity and Rs. 3.50 lakh/unit of 100 kg capacity for a maximum of 5 units per beneficiary	Assistance @ 40% in General areas and @ 55% in the case of NE & Himalayan States, TSP areas, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
C.19 Integrated Cold Chain Project (Integrated Pack House/ Collection Aggregation Centre and Refrigerated Transport vehicle will be mandatory)	Upto a max. cost of Rs. 1,000.00 lakh/per project. Project should comprise of minimum 2 components from C-2 to C-13 to qualify for assistance.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands
C.20 Integrated Supply Chain Project	Upto a maximum cost of Rs. 2,000 lakh per project	Credit linked back-ended assistance @ 40% of eligible cost of project in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
D. Establishment of Marketing Infrastructure		
D.1 Rural Markets/ Apni mandis /Direct markets	Rs. 25.00 Lakh	Back-ended assistance @ 40% of the capital cost of project in general areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
D.2 Retail markets/ outlets (environmentally controlled)	Rs. 20.00 Lakh/unit	Assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
D.3 Static/Mobile vending cart/platform with cool chamber	Rs. 30,000/unit	50% of total cost.
D.4 Modified retail refer van with retail counter (to be linked with Integrated Pack house)	Rs. 20 Lakhs with loading capacity of 3 MT	Assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.

Item	Cost Norms*	Pattern of Assistance#
D.5 Functional infrastructure:		
(i) Quality control /analysis lab	Rs 200.00 lakh	Assistance @ 100% of the total cost to public sector and credit linked back-ended assistance @ 50% of cost to private sector to check Maximum Residue Levels. The project could be established in PPP Mode also.
E. FOOD PROCESSING		
E.1 Food Processing	Rs. 1,000 lakh/unit	Credit linked back-ended capital investment assistance of 50% of cost only in NE and Himalaya States i.e. J&K, Himachal and Uttarakhand.
E.2 Secondary Processing units for Value addition	Rs. 100 lakh/unit	Assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, TSP and Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands.
F. Special Interventions		
F.1 Innovative interventions not covered under any GOI scheme.	10% of outlay	Assistance @ 50% of cost as a project based activity.
F.2 Tackling of emergent/ unforeseen requirement of SHMs	Upto a maximum of Rs 100.00 lakh	Assistance @ 50% of cost based on project proposal.
G. Mission Management		
G.1 State & Districts Mission Offices and implementing agency for administrative expenses, project, preparation, computerization, contingency etc.	2.5% of total annual allocation	100% assistance
G.2 Institutional Strengthening including purchase of hardware, software and hiring of vehicles.	Need based	100% assistance
G.3 Seminars conferences, workshops, exhibitions, kisan mela, horticulture shows, honey festivals etc.		
a) International level	Rs 7.50 lakh per event	Assistance @ 100% to public sector and @ 50% to private sector per event of 3 days on pro rata basis. Physical Participation from atleast 5 countries.

Annexure V (contd.)

Item	Cost Norms*	Pattern of Assistance#
b) National level	Rs 5.00 lakh per event	Assistance @ 100% to public sector and @ 50% to private sector per event of 2 days on pro rata basis
c) State level	Rs 3.00 lakh per event	Assistance @ 100% to public sector and @ 50% to private sector per event of 2 days on pro rata basis
d) District level	Rs 2.00 lakh per event	Assistance @ 100% to public sector and @ 50% to private sector per event of 2 days on pro rata basis
G.4 Information dissemination through publicity, printed literature and local advertisements etc.	Rs 1.00 lakh/ district	Assistance @ 100% of cost
G.5 Technical Support Group at State level	Project based subject to ceiling of Rs 50.00 lakh per annum per State	100% of cost should not exceed the ceiling per annum.
G.6 Baseline survey and strengthening horticultural statistical data base	Project based subject to a maximum of Rs. 200.00 Lakhs per State/UT	Assistance @ 100% of cost as one time grant for survey related activities.
National Level		
G.7 Technical Support Group at National level for hiring experts/ staffs, studies, seminars / workshops, training, contingencies	2.5% of BE per annum	100% of cost.
G.8 Technical collaboration with international agencies like FAO, World Bank, ADB, Bilateral cooperation, international exposure visits/ training of officials etc.	Project based. On actual cost basis.	100% of cost

* Cost norms means upper limit of cost for calculation of subsidy.

Note:

- 1) The release of subsidy need not be credit linked for the institutions like Public Sector Units, Panchayats, Cooperatives, Registered Societies / Trusts and Public limited Companies, provided they can meet the remaining share of the project cost, out of their own resources. Scheduled Areas include those areas notified by Planning Commission and State Governments. TSP Areas include those areas notified by Ministry of Tribal Affairs. Vibrant villages are those border villages which are situated at Ladakh, Himachal Pradesh, Uttarakhand, Sikkim & Arunachal Pradesh and are notified by the Ministry of Home Affairs. NE & Himalayan States refer to States in North East & Himalayan region covered under HMNEH scheme.
- 2) **All projects having financial outlay of more than Rs. 10.00 Lakhs has to be back ended.** However, credit linkage for projects upto Rs. 30 lakhs may be optional and subsidy would be released in two instalments in TRA/Escrow/SRF accounts based on progress after the Joint inspection report when found satisfactory.
- 3) New add on components and crops may be added with the approval of Hon'ble Agriculture Minister, if required.

INDICATIVE UNIT COST FOR AREA EXPANSION OF SELECTED FRUIT CROPS:

(Rupees per hectare)

Crop	Plant spacing (m)	No. of Plants/ha	Cost of planting material	Cost of inputs	Total cost without integration
Almond	3.0 × 3.0	1111	200000	100000	300000
Aonla	6.0 × 6.0	278	12010	36000	48010
	4.0 × 5.0	500	21600	38400	60000
	3.0 × 3.0	1110	47952	108000	155952
Apple	6.0 × 6.0	278	55600	69400	125000
	4.0 × 4.0 (RS- MM 111)	625	87500	35000	122500
	3.5 × 3.5 (RS- MM 111)	814	90000	35000	125000
	3.0 × 3.0 (RS- MM106)	1111	95000	35000	130000
	3.0 × 1.5 (RS- M9)	2222	400000	100000	500000
	2.5 × 2.5 (RS- MM 106)	1600	96000	35000	131000
	1.5 × 1.5 (RS- M9)	4444	50000	25000	75000
Apricot	4.0 X 4.0	625	45000	38400	83400
	3.5 X 3.5	816	58752	42000	100752
Avacado	6.0 × 6.0	278	33360	262500	295860
Banana (Sucker)	2.0 × 2.0	2500	90000	20000	110000
Banana (TC)	1.8 × 1.8	3086	100000	75000	175000
	1.5 × 1.5	4444	140000	75000	215000
Ber	6.0 X 6.0	278	10008	24000	34008
	5.0 X 5.0	400	14400	27600	42000
	4.0 X 4.0	625	22500	30000	52500
Cherry	4.0 X 4.0	625	22500	38400	60900
Custard apple	2.5 X 2.5	1600	76800	50400	127200
Date Palm			250000	150000	400000
Dragon Fruit	2.0 x 2.0	4625	161875	513750	675625
Fig	4.0 X 4.0	625	22500	38400	60900
	2.5 X 2.5	1600	57600	42000	99600
Grapes	4.0 x 4.0	625	11250	117600	128850
	3.0 × 3.0	1110	19980	120000	139980
	3.0 × 2.0	1666	29988	132000	161988

Appendix I (contd.)

	1.8 × 1.8	2777	49986	138000	187986
Passion fruit	4.0 × 4.0	625	15000	117600	132600
	3.0 × 3.0	1111	26664	120000	146664
	3.0 × 2.0	1666	39984	132000	171984
Papaya	1.8 X 1.8	2777	49986	24000	73986
	1.5 X 1.5	4444	79992	26400	106392
Peach	3.0 X 2.5	1333	55986	54000	109986
	2.5 X 2.5	1600	56000	60000	116000
Pear	5.0 X 5.0	500	18000	27600	45600
	4.0 X 4.0	625	22500	36000	58500
	3.0 X 3.0	1111	39996	48000	87996
Plum	3.5 X 3.5	816	39168	42000	81168
	2.5 X 2.5	1600	76800	50400	127200
Sapota	5.0 X 5.0	400	17280	37200	54480
Kiwi	6.0 × 6.0	278	8340	36000	44340
	4.0 × 6.0	555	12480	120000	132480
	4.0 × 5.0	1111	15000	138000	153000
	4.0 × 4.0	2222	18750	144000	162750
Strawberry	0.9 × 0.45	24691	148146	66000	214146
	0.6 × 0.25	66666	399996	60000	459996
	0.5 × 1.0	2000	12000	120000	132000
Lime & Lemons	3.0 × 3.0	1111	150000	50000	200000
	4.0 × 4.5	555	95000	30000	125000
Mandarine / Orange	6.0 × 6.0	278	77840	30000	107840
	5.4 × 5.4	343	96040	30000	126040
	5.0 × 5.0	400	112000	30000	142000
	5.0 × 4.5	444	124320	30000	154320
	4.5 × 4.5	494	138320	50000	188320
	4.0 × 5.0	500	140000	50000	190000
Sweet orange	6.0 × 6.0	278	95000	30000	125000
Guava	6.0 × 6.0	278	19460	30000	49460
	3.0 × 6.0	555	38850	30000	68850
	3.0 × 3.0	1111	77770	50000	127770
	1.5 × 3.0	2222	155540	100000	255540

Appendix I (contd.)

	1.0 x 2.0	5000	200000	100000	300000
	4.0 x 4.0	625	43750	100000	143750
Litchi	10.0 x 10.0	100	10000	30000	40000
	7.5 x 7.5	178	17800	30000	47800
	6.0 x 6.0	278	27800	50000	77800
	4.5 x 4.5 x 9.0	329	32900	100000	132900
Logan	7.5 x 7.5	177	38940	73750	112690
Mango	10.0 x 10.0	100	10000	30000	40000
	5.0 x 5.0	400	40000	50000	90000
	4.0 x 6.0	416	41600	50000	91600
	3.0 x 6.0	555	55500	50000	105500
	3.0 x 4.0	833	83300	50000	133300
	2.5 x 2.5	1600	160000	100000	260000
Macadamia Nut	8.0 x 8.0	155	46500	71250	117750
Pineapple (Sucker)	0.6 x 0.3	45000	162000	27600	189600
Pineapple (TC)	0.6 x 0.3	45000	216000	41400	257400
	0.3 x 0.6 x 0.9	43000	206400	41400	247800
	0.225 x 0.6 x 0.9	53000	254400	67200	321600
Pomegranate	5.0 x 5.0	400	50000	48000	98000
	5.0 x 4.0	500	62500	60000	122500
	5.0 x 3.0	667	83375	80040	163415
	5.0 x 2.5	800	100000	96000	196000
	4.5 x 3.0	741	92625	88920	181545
	4.0 x 3.0	666	83250	79920	163170
Rambutan: Seedling	10.0 x 10.0	100	4000	40000	44000
	12.0 x 12.0	70	2800	40000	42800
Rambutan: Veg. propagated	8.0 x 8.0	160	16000	42000	58000
	8.0 x 6.0	208	20800	42000	62800
Persimmon	6.0 x 6.0	280	56000	45000	101000
	4.0 x 4.0	625	125000	45000	170000
Durian	6.0 x 6.0	280	47600	45000	92600
	10.0 x 10.0	100	17000	40000	57000

Appendix I (contd.)

Mangosteen	8.0 x 8.0	160	16000	42000	58000
	4.5 x 4.5	494	49400	137500	186900
Phalsa	3.0 x 3.0	1111	44440	48000	92440
Tamarind	7.0 x 7.0	204	32640	155625	188265
Jamun: Con-ventional	8.0 x 8.0	156	12480	42000	54480
	6.0 x 6.0	280	22400	45000	67400
Jamun: High Density	5.0 x 5.0	400	32000	45000	77000
Bael	5.0 x 5.0	400	24000	11800	35800
Karonda	5.0 x 5.0	400	16000	45000	61000
Jackfruit	12.0 x 12.0	70	11900	40000	51900
	10.0 x 10.0	100	17000	40000	57000
Khirni: Con-ventional	12.0 x 12.0	70	5600	40000	45600
	10.0 x 10.0	100	8000	40000	48000
	8.0 x 8.0	156	12480	42000	54480
High Density	5.0 x 5.0	400	32000	45000	77000
Garcinia	5.0 x 5.0	400	16000	45000	61000
Hanuman phal	5.0 x 5.0	400	16000	45000	61000
Carambola	5.0 x 5.0	400	40000	45000	85000
Walnut	6.0 x 6.0	278	166800	100000	266800
	5.0 x 5.0	400	240000	160000	400000

NATIONAL HORTICULTURE BOARD: PROPOSED CHANGES IN COMPONENTS AND COST NORMS

Scheme No. 01	Development of Commercial Horticulture through Production and Post Harvest Management (Integrated Projects)		
1 (i)	Commercial Horticulture Development in open field conditions in a project mode.	Rs. 100.00 lakh/per project for projects covering area over 2 ha including add on components as per crop wise/component wise cost norms of MIDH on pro-rata basis. The integrated project may include the components viz planting material, plantation, irrigation, fertigation, mechanization, precision farming, GAP etc.	Credit linked back ended subsidy @ 40% of project cost in general area and @ 50% of project cost for NER and Himalayan States, Scheduled Areas and UTs of Andaman & Nicobar Islands, Lakshadweep Islands, Jammu & Kashmir and Ladakh.
1 (ii)	Large scale Hi-Tech open field cultivation of identified high value horticulture crops in a project mode (Apple, Walnut, Almond, Cashew nut, Kiwi and Date palm)	Rs. 200.00 lakh/per project for projects covering area over 20 ha as per crop wise/component wise cost norms of MIDH on pro-rata basis. The integrated project may include the components viz planting material, plantation, irrigation, fertigation, mechanization, precision farming, GAP etc.	Credit linked back ended subsidy @ 40% of project cost in general area and @ 50% of project cost for NER and Himalayan States, Scheduled Areas and UTs of Andaman & Nicobar Islands, Lakshadweep Islands, Jammu & Kashmir and Ladakh.
1 (iii)	Commercial Horticulture Development in protected conditions in project mode	Project based as per MIDH cost norms including add on components for area above 4,000 Sq.m. per project as per crop wise/component wise cost norms of MIDH on pro-rata basis. For NE States, lower limit of area may be kept at 1,000 Sq. m	Credit linked subsidy @ 50% of eligible project cost having maximum subsidy upto 100 Lakh/project.
1 (iv)	Hi-tech Plug Type Nursery under controlled conditions in project mode	Project based as per MIDH cost norms including add on components for area above 4,000 Sq.m. per project as per crop wise/component wise cost norms of MIDH on pro-rata basis. For NE States, lower limit of area may be kept at 1,000 Sq. m	Credit linked subsidy @ 50% of eligible project cost having maximum subsidy upto 100 Lakh/project.
1 (v)	Setting up of new Tissue Culture Unit	As per MIDH norms	As per MIDH norms

Annexure VI (contd.)

1 (vi)	Integrated Mushroom Production Unit in project mode	As per NHB norms for a minimum installed capacity above 50 MT and upto 300 MT in controlled conditions	Credit linked subsidy @ 40% of eligible project cost in General area and @ 50% of eligible project cost for NE and Himalayan States, Scheduled Areas and UTs of Andaman & Nicobar Islands, Lakshadweep Islands, Jammu & Kashmir and Ladakh.
1 (vii)	All Post Harvest Management Components (C1 to C6 as per MIDH guidelines)	As per MIDH Cost Norms Note: Component has to be implemented in accordance to NCCD guidelines only	As per MIDH Cost Norms
1 (viii)	Refrigerated Transport vehicles	Upto max. Rs. 80.00 lakh/ project in general areas and Upto max. Rs. 100.00 lakh/ project in Northeast & Himalayan regions for refrigerated vehicle capacity of 15 MT and above. However, actual cost would be derived based on quantity etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands Note: Component has to be implemented in accordance to NCCD guidelines only
1 (ix)	Secondary Processing units for Value addition	Rs. 100 lakh/unit (as per MIDH cost norms)	Assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands (as per MIDH norms)
1 (x)	Non-Pressurized Ripening Chamber also termed as CS-3	Rs. 1.00 lakh/MT	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands
1 (ix)	ii) Pressurized Ripening Chamber also termed as CS-3	Rs. 1.20 lakh/MT	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands

Scheme No. 02	Capital Investment subsidy scheme for Construction/ Expansion/ Modernization of Cold Storages		
CS-1	i) Cold Storage Type-I is defined as CS-1 with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 9,120/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 8,640/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 8,160/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 4,080/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	ii) Cold Storage Type-I is defined as CS-1 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 11,400/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 10,800/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 10,200/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 5,100/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	iii) CO₂ scrubber (need/produce based), unified control system, material conveying/hoist system, doors, Automated computerised system, HPT, BOPT and dock leveller system (Applicable for Cold storage units Type 1 only)	Upto Max cost of Rs. 52.0 lakh/project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
CS-1 Onion	i) Cold Storage Type-I-Onion is defined as CS-1-Onion with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5000 MT and upto 20,000 MT as per following rates: • @ Rs. 9,120/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 8,640/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 8,160/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 4,080/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Annexure VI (contd.)

	ii) Cold Storage Type-I-Onion is defined as CS-1-Onion with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazzenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 11,400/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 10,800/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 10,200/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 5,100/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	iii) CO2 scrubber, unified control system, material conveying/hoist system, doors, Automated computerised system, ventilation system, specialised stacking system, HPT, BOPT and dock leveller system (Applicable for Cold storage units Type 1-onion only)	Upto Max cost of Rs. 531.00 lakh/project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
CS 2	i) Cold Storage Type-II is defined as CS-2 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazzenine structure	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 11,400/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 10,800/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 10,200/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 5,100/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	ii) CO2 scrubber (need/produce based), unified control system, material conveying/hoist system, HPT, BOPT and dock leveller system, Stacking system, high reach handling equipment, doors and Automated Computerised System with Labelling and Traceability System (Applicable for Cold storage units Type 2 only)	Upto Max cost of Rs. 198.00 lakh/project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50%in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

CS-2-CA	i) Cold Storage Type-II with CA is defined as CS-2-CA with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 11,400/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 10,800/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 10,200/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 5,100/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	ii) CA Components: Details of the components are described in NCCD guidelines.	Upto Max cost of Rs. 995.00 lakhs/project (Max. subsidy for CA store may not exceed more than 900 Lakhs including add-ons) The actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
CS-4	i) Cold Storage for dry spices & raisins is defined as CS-4 with Construction in civil including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 9,120/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 8,640/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 8,160/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 4,080/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	ii) Cold Storage for dry spices & raisins, MFP, etc. is defined as CS-4 with Construction in combination of civil & PEB including PUF/PIR panels, Ante-rooms, Refrigeration Units, Electrical Installation, Administrative block, Safety/Fire Safety and Hazard control and basic mazenine structure (For other component details please refer to NCCD guidelines)	NHB to take up projects with capacity above 5,000 MT and upto 20,000 MT as per following rates: • @ Rs. 11,400/MT for capacity between 5,001 to 6,500 MT. • @ Rs. 10,800/MT for capacity between 6,501 to 8,000 MT. • @ Rs. 10,200/MT for capacity between 8,001 to 10,000 MT. • @ Rs. 5,100/MT for capacity between 10,001 to 20,000 MT.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only

Annexure VI (contd.)

	iii) Material hoist HPT, BOPT and dock leveller system and doors (Applicable for Cold storage units for dry spices and raisins)	Upto Max cost of Rs. 33.00 lakh/project. However, actual cost would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	Credit linked back-ended assistance @ 35% in General areas and @ 50% in the case of NE & Himalayan States, Scheduled areas, vibrant villages, Andaman & Nicobar and Lakshadweep Islands. Note: Component has to be implemented in accordance to NCCD guidelines only
	C.12 Technology induction/modernization of Cold Storage 1. Modernisation (Refrigeration & Unified Control System) 2. Modernisation (Insulation) 3. Modernisation (Synthetic Refrigerants) 4. Modernisation (Automated Computerised System with Labelling and Traceability System) 5. Modernisation (Bundle Component) 6. Modernisation (Unified Control System)	1. Max. Rs. 125.00 lakhs (where 5 Lakhs/project is for Unified Control System) but not more than Rs. 3,000/MT of the cold store capacity for modernization of refrigeration 2. Max. Rs. 120.00 lakhs but not more than Rs. 1,800/MT for modernization of insulation respectively. 3. Max. Rs. 1.20 lakh/project for modernization of refrigerant gases but not more than Rs. 2000/kg for Refrigerant gases having GWP in range 500-1000 and Rs. 1,400/kg for Refrigerant gases having GWP in range 1000-1500. 4. Max. Rs. 3.50 lakh/project for Automated Computerized System with software for generating QR/Bar code labelling, farmers details, date of arrival, variety of the crop at the arrival of facility (Labelling and Traceability System) 5. Max. Rs. 43.50 lakh/project for Alternate Technology bundle, which includes: a. Vapour Absorption/ Phase Change Material (PCM)/ Solar PV panels/ Solar Thermal System. b. Labelling and Traceability System c. Unified Control System	Credit linked back-ended assistance @ 50% of the actual cost or @ 50% of the Rs. 125.00 lakh whichever is lower, for Modernisation of Refrigeration, with capping of maximum subsidy to Rs. 62.50 lakhs & 50% of the actual cost or 50% of the Rs. 120.00 lakh whichever is lower, for Modernisation of Insulation, with capping of maximum subsidy to Rs. 60.00 lakhs. 50% of the invoice value or maximum of Rs. 1.75 lakh per project or whichever is less. (This can be availed as Standalone Component) 50% of the invoice value or maximum of Rs. 1.75 lakh per project or whichever is less. (This can be availed as Standalone Component) 50% of the invoice value or maximum of Rs. 21.75 lakh per project or whichever is less. (This can be availed as Bundle all Components a, b, c) 50% of the actual cost or 50% of the Rs. 5 lakh whichever is lower, for availing Unified Control System, with capping of maximum subsidy to Rs. 2.5 lakhs (This can be availed as Standalone Component)

		*Unified Control System can be availed as a standalone component with Max. of Rs.5 Lakh /project. However, actual cost for all the applicable components would be derived based on the component and qty., etc. chosen depending upon components selection as per NCCD guidelines.	
Scheme No. 03	Development and Transfer of Technology for Promotion of Horticulture		
(i)	Scion and Root Stock Mother Block for Nursery purpose	Maximum upto Rs. 100.00 Lakh/ha for an area from 1 to 5 ha on pro rata basis including virus indexing, tissue culture lab etc.	No change
3 (ii)	Import of planting material, mass multiplication & upgradation of existing and establishment of new PEQ facilities.	As per MIDH	As per MIDH
3 (iii)	Accreditation and Rating of Horticulture Nurseries	Rs.1.00 lakh/ nursery	By Central Nodal Agency
3 (iv)	Import of new Machines and Tools for horticulture for demonstration purpose (Public Sector)	Rs. 50.00 lakh/machine	100% of total cost and only through govt. agency
3 (v)	Development & Transfer of Technology	Rs. 30.00 lakh/ project	No change
3 (vi)	Long Distance Transport Solution	Rs. 2,000.00 lakh	Project based
3 (vii)	Product Promotion and Market Development Services through Horti-fairs etc.	Rs. 30.00 lakh per project at National Level and Rs. 100.00 Lakhs for International Level.	No Change
3 (viii)	<i>Exposure visits & training of farmers outside State"</i>	As per MIDH norms	As per MIDH norms
3 (ix)	<i>Visits of Govt officials outside India"</i>	Rs. 6.00 lakh per participant	100% of cost on actual basis.
3 (x)	Organization/ Participation in Seminar/ Symposia / Workshop for Development of Horticulture at national and international level	Rs. 10.00 lakh for international event, Rs. 5.00 lakh for National event and Rs. 3.00 lakh for State Level event and Rs. 50,000/- for District level event.	50% of cost on actual basis for private agency and 100% for NHB's own events.
Scheme No. 04	<i>Horticulture Promotion Services and Establishment / strengthening of NHB"</i>	Project based as per actual cost	By Central Nodal Agency

Annexure VI (contd.)

New Schemes/Initiatives			
Scheme No. 05	Cluster based Development of Horticulture to enhance global competitiveness of the sector	As per the guidelines of Cluster Development Programme	As per the guidelines of Cluster Development Programme
Scheme No. 06	Clean Plant Programme	As per the guidelines of Clean Plant Programme	As per the guidelines of Clean Plant Programme
Scheme No. 07	Bharat GAP	As per the guidelines of Bharat GAP	As per the guidelines of Bharat GAP

NORMS FOR TECHNOLOGY ADD ON COMPONENTS AND OTHER ESSENTIAL COMPONENTS OF INTEGRATED COMMERCIAL HORTICULTURE PROJECTS

(Applicable only wherever MIDH cost norms are not available)

S. No.	Item	Description	Admissible Cost Revised
I	Cost of Land*#	Admissible only if purchased newly but not before one year from date of sanction of loan.	Actual or up to 10 % of Eligible Project Cost (EPC) (Excluding cost of Land and Development) whichever is less subject to maximum of Rs. 60,000/- per acre.
I(i)	Land Development*#	Includes cost of Land leveling, digging of pits, fencing, gates etc.	Actual or up to 15% of Eligible Project Cost (EPC) (Excluding cost of Land and Land Development) whichever is less subject to maximum of Rs. 60,000/- per acre.
II	Cultivation expenses*#	Includes cost of Planting material, cost of input (labour, fertilizer and manures, pesticides etc)	As per MIDH (NHM) cost norms on pro-rata basis
III	Drip system with internal pipeline	Component includes mainline, valve, backflow preventer pressure regulator, filter, tubing adapters and fittings, drip tubing, emitters and end cap	• Actual or Rs.24,000/-per acre for plant density up to 200 plants • Actual or Rs.30,000/-per acre for plant density >200 plants/acre
III (i)	Irrigation infrastructure excluding micro irrigation* #	Irrigation infrastructure like tube-well/bore well/open well, pipeline, water harvesting structure, water harvesting structure, water tank etc, admissible only if newly created with loan component	• Actual or upto Rs.60,000/-per acre for open field cultivation. • Rs.4.80 lakh per project in case of protected cultivation. Component-wise cost norms will be as under: 1. Tube-well – up to Rs. 3.00 lakh per unit 2. Water harvesting structure- @ Rs.100/- CuM with use of minimum 300 microns plastic films or RCC lining. 3. Cost of non lined ponds/tanks will be 30% less. Pipe line-Rs 150/- per running meter only from source (min. 4” diameter) of irrigation to production unit
IV	Horticulture Mechanization* # ##	• Power/hydraulic operated machine/ tools including small farms tractor with rotavator/equipments etc. • Machineries Identified by NHB under farm mechanization component may be considered for subsidy in standalone mode	As per SMAM Norms

Annexure VI (contd.)

V	Civil Infrastructure * #	Includes Functional Pack House/ On farm collection unit and labour quarter	1. Functional Pack house @ Rs. 4.80 Lakh/unit with size of 9 x 6 Meter (Pro rata basis for lower size) 2. Labour Quarter/Storeroom @ Rs. 24,000/- per acre maximum up to 3.60lakh. Cost norm as per pack house
VI	Vermi Compost unit * #	Permanent structure and HDPE vermibed	Rs. 72,000/-per unit for permanent structure and Rs.12,000/-for HDPE vermibed 96cft (12'x4'x2') and ISO 15907:2010
VII	Certification for Good Agriculture Practice (GAP), including infrastructure* ##		Rs.4800/-per acre.
VIII	Support system for Grapes (trellis, telephone, bawar and other system etc. *	Permanent structure made up of MS angles and stainless-steel wire.	Rs.1,80,000/-per acre
IX	Plastic Mulching * ##		Rs.15360/- per acre and Rs.17675/-acre for Hilly States
X	Bed Preparation Cost in the cases requiring Soil replacement #	Protected Cultivation projects only in cases involving removal and replacement of top soil by red soil or cultivation is done on media/ Pots/Concrete bed	Rs.120/-per Sq.m.

COST NORMS FOR PROTECTED CULTIVATION UNDER NHB SCHEME:

Cost Rs. Lakh per acre

S. No.	Crop	Cost of Poly house with drip & fogger system	Cost of Cultivation	Cost ceiling per acre with addon components in project mode
1	Anthurium & Orchid	40.00	33.60	80.00
2	Rose, Lilium, Chrysanthemum, Gypsophila	40.00	20.45	70.00
3	Carnation & Gerbera	40.00	29.28	75.00
4	Hi-Value vegetable under poly house	40.00	6.72	55.00
5	Hi-Value Vegetable under shade net House	28.40	6.72	40.00

Components categorization:

*Commercial Horticulture, within overall cost ceiling

#Protected Cultivation, within overall cost ceiling

Over and above overall cost ceiling

Annexure VII

COST NORMS AND PATTERN OF ASSISTANCE FOR COCONUT DEVELOPMENT BOARD

S. No.	Item	Cost Norms	Pattern of Assistance
A	Normal schemes		
A.1	PRODUCTION OF QUALITY PLANTING MATERIAL		
a.	Demonstration cum- Seed Production Farm (DSP)		
i.	Setting up new DSP Farms	Rs. 30.00 lakh / farm	100% to CDB for first two years.
ii.	Maintenance of existing DSP Farms	Max. Rs.1.00 lakh per ha/year from 3 rd year onwards till yield stabilization (15 to 20 years)	100% to CDB
b.	Establishment of Regional Coconut Nurseries (To be renamed as 'Assistance for quality planting material production in Public Sector nurseries')	Rs. 40.00 per seedling	50% of cost
c.	Establishment of Nucleus Coconut Seed Garden	Rs. 7.20 lakh per ha for a maximum of 4 ha	50 % of cost
d.	Establishment of Small Coconut Nursery	Rs. 90/- per seedling (max.)	100% of cost for Public sector and @ 50%for Private sector
e.	Accreditation and rating of coconut nurseries	Max. Rs. 1.50 lakh for a nursery of annual production capacity of min. 20,000 seedlings	100% of cost for Public sector and for Private sector
A.2	Expansion of Area under coconut	Rs. 1.60 Lakh/ha	Assistance @ 35% of the cost for an area upto 2 ha per beneficiary, in 2 equal installments.
A.3	Comprehensive programme for sustainable productivity improvement in existing coconut holdings		
a.	Productivity Improvement through Coconut Based Cropping system	Rs. 42,000/ha	100% of cost for Public sector
b.	Creation of water resources in coconut gardens		
	i. by individual farmers	As per NHM norms followed under MIDH	As per NHM norms followed under MIDH
	ii. On community basis	As per NHM norms followed under MIDH	As per NHM norms followed under MIDH
c.	Adoption of organic farming in coconut	As per PKVY norms	As per PKVY norms
d.	Organic certification of coconut Gardens	As per PKVY norms	As per PKVY norms
e.	Farm mechanization in coconut plantation for augmenting farmers income	As per SMAM norms	As per SMAM norms
A.4.	Technology Demonstration / Quality Testing lab	As per Soil Health Card scheme	100% to CDB

S. No.	Item	Cost Norms	Pattern of Assistance
A.5.	Market intelligence & Research, Product & Brand Promotion and Export Promotion services	On need basis, max. Rs. 50.00 lakh per project	100 % to CDB
A.6.	Capacity Building, Training & Awareness programmes and Information Technology	On need basis, max. Rs. 50.00 lakh per project	100 % to CDB
A.7.	Establishment, Infrastructure development & Technical Support Services)	On need basis	100 % to CDB
B.	Technology Mission on Coconut		
B.1.	Management of insect pests and disease affected gardens		
a.	Development/ Demonstration of technologies	On project basis	100 % cost to public sector to a max. of Rs. 50.00 lakh
b.	Adoption of technologies	On project basis (Max. Rs. 1.00 lakh/ha)	25 % of the cost (Rs. 0.40 lakh per ha), on pro-rata basis
B.2.	Processing and product diversification		
a.	Development/ Acquisition/ training/ demonstration of technologies	On project basis	100 % cost to public sector to a max. of Rs. 100.00 lakh
b.	Adoption of technologies	On project basis	a) Back-ended credit capital subsidy limited to 25 % of the cost. b) For SC/ST women farmers, 33.3% of the project cost. c) In case of high value agriculture in the Union Territories of A & N Islands and Lakshadweep 50 % of the cost. To a maximum of Rs. 500.00 lakh
B.3.	Technical support external evaluation & emergent requirement	Project basis	On need basis
C.	Replanting & Rejuvenation of old coconut garden		
a.	Cutting & removing old / senile palms	Rs. 32,000 per ha	@ Rs. 1,000/palm limited to 32 palms / ha
b.	Assistance for replanting incl. gap filling	Rs.90/- per seedling	50% of cost subject to maximum of Rs. 4,500 / ha
c.	Improvement of existing coconut gardens through integrated management practices.	Rs. 70,000 / ha	25% of cost in two equal installments.
D.	Coconut Palm Insurance Scheme	As per Fasal Bima Yojana	As per Fasal Bima Yojana
E.	Kera Suraksha Insurance Scheme	Project Based	100% of cost to CDB.

Annexure VIII

NATIONAL BAMBOO MISSION (NBM)

S. No.	Item	Cost Norms*	Pattern of assistance#
A	A. Propagation & Cultivation		
1	Bamboo Nursery both in public and by private sectors including strengthen of existing (project based)		
i	Hi-tech (2 ha)	Rs. 60 Lakhs/Unit	100% of cost to Govt. sector and in case of private sector credit linked back ended assistance @ 50% of cost.
ii	Big (1 ha)	Rs. 20 Lakhs/Unit	
iii	Small (0.5 ha)	Rs. 10 Lakhs/Unit	
iv	New Tissue Culture Unit	Rs. 250 Lakhs/Unit	Assistance @ 100% to public sector and in case of private sector, credit linked back-ended assistance @ 40% as project based activity. Each TC unit will produce a minimum of 10 lakh plants/year or on pro rata basis for higher capacity upto 25 lakh plants/unit of mandated crops, duly hardened, for which protocols are available for commercial use Accreditation of each TC lab will be mandatory within 18 months from the date of receipt of last instalment.
v	Raising of Saplings in existing government TC nursery	Rs 35/- per sapling per year	%100 of cost to Govt. sector.
vi	Raising of Saplings in existing government Non-TC	Rs 20/- per sapling per year	
2	Plantation (Using planting material from the accredited/ approved nurseries)	Rs. 1.20 Lakhs per ha (equivalent to Rs. 300 per plant)	100% of cost to Govt. sector. For private sector 50% of the cost upto 10 Ha over 2 years (60:40). Additional 10% assistance for NE States. For plantation above 10 ha no subsidy will be provided. Plantation may also be carried out by FPOs formed as per the guidelines of the scheme of DA& FW 'Formation of 10,000 FPOs' as well as the existing FPOs. For FPOs, maximum 10 Ha per individual member may be taken up.

Annexure VIII (contd.)

3	Integrated Plantation with drip irrigation facility (using planting material from the accredited nurseries)	Rs 1.20 Lakhs per ha (equivalent to Rs. 300 per plant) + cost of drip irrigation (norms of PMKSY-PDMC).	100% of cost to Govt. sector. For private sector 50% of the cost upto 10 Ha over 2 years (60:40). Additional 10% assistance for NE & Himalayan States. For plantation above 10 ha no subsidy will be provided. Plantation may also be carried out by FPOs formed as per the guidelines of the scheme of DA&FW 'Formation of 10,000 FPOs' as well as the existing FPOs. For FPOs, maximum 10 Ha per individual member may be taken up.
4	Stock Improvement	Rs. 30,000 per ha	For Government 100%. For private 50% limited to 2 ha per beneficiary for private sector and no area limit for Govt. sector.
B	Primary Processing and Aggregation#	Project Based	100% of cost to Govt. sector and in case of private sector credit linked back ended assistance @ 50% of cost. Additional 10% assistance for NE States.
C	Innovative Interventions including manufacturing units##	Project Based	100% of cost to Govt. sector and in case of private sector credit linked back ended assistance @ 50% of cost. Additional 10% assistance for NE States.
D	Promotion and Development of Infrastructure for Bamboo Market\$	Project Based	100% of cost in Govt. sector 25% assistance in private sectors subject to maximum upto indicative cost. (33% for private sector to North Eastern States)
E	Development of tools, equipment & machinery		
1	Technological enhancement of indigenous tools, equipment & machinery	Project based	100% grant to Govt. institutions for development of design etc., 50% grant to those machine making units who are developing these machines
2	Import of technological superior tools, equipment & machinery in Common Facility Centre	Project based	100% grant to Govt. institutions for development of design etc., 50% grant to those machine making units who are developing these machines
3	Centre of Excellence in thematic areas of the bamboo value chain including through bilateral cooperation	Project Based (upto 15 Cr)	%100 cost to public sector. This can be established through bi-lateral co-operation also.

Annexure VIII (contd.)

F	Skill Development		
	Training of Farmers/ Artisans/field functionaries/International training / visit for exposure of NBM staff/ field functionaries including farmers and entrepreneurs in bamboo sector to upcoming technologies/ Entrepreneurs Training	Project Based	As per approved rates for the premier training institutions / Sector Skill Councils under Skill India program. 100% to Public Sector.
G	IEC. (Information, Education & Communication)	Project Based	100% for Govt.
H	Research & Development of Bamboo Value Chain		
1	Mapping of resource base, market survey, certification, Bamboo construction & product design	Project based	For private sector upto 10 lakh 100% for Government organizations
2	Maintenance of Bamboo setum for locational trials of commercially important species	Project based	100 % for Government Sector
3	Bamboo based Business Incubation Centre Innovations in Bamboo / Design Development/ Product Based Technology Development	Project based	100 % for Government Sector
I	Project Management (upto 2.5% of allocation)		
i	State/ BTSG Level :- Project management contingency Monitoring & Evaluation	Proposal based	Upto 2.5%
ii	National Level	Proposal based	
J	Technical Cooperation (National Level) with International Agencies like FAO, World Bank, ADB, UNIDO Bilateral Cooperation, International Exposure Visit/ trainings of officials	Project Based (On actual cost basis)	100% Cost

includes components like establishment of bamboo treatment and seasoning plants, bamboo depots and godowns, Common Facility Centre

includes components for value addition, handicrafts/cottage industries, lifestyle products, furniture, jewellery, bamboo food processing, incense sticks, charcoal/biochar, beauty and wellness products. Scaling up of emerging technologies, upgradation of existing units, fibre/fabric extraction, engineered bamboo products, compressed bio-energy, activated charcoal, bamboo pellets, granules, composite and molded products.

\$ Includes components like bamboo mandi, e trading, bamboo bazaar, rural haats/retail outlets, bamboo construction.

LIST OF NATIONAL LEVEL AGENCIES OF MIDH

National Horticulture Board (NHB), Gurgaon

NHB will implement programmes as sub-scheme of MIDH. NHB will also house the national level TSG besides the TSG for NHM, HMNEH and NBM and extend administrative, logistical and personnel support towards the implementation of NHM, HMNEH and NBM. Details about NHB are available on its web site (www.nhb.gov.in).

Coconut Development Board, Kochi

CDB will implement programmes as sub-scheme of MIDH. It will also house the TSG for coconut related programme. Details about CDB are available on its web site (www.coconutboard.nic.in).

Small Farmers' Agri-Business Consortium (SFAC), New Delhi

Small Farmers Agri-business Consortium (SFAC) (www.sfacindia.com) will provide necessary handholding with regard to the NE and Himalayan States. It will be lead agency for the formation of Farmers' Associations/Groups and their tie-up with financial institutions and market aggregators. It will also house the TSG for HMNEH, CIH and VIUC schemes.

Directorate of Cashew and Cocoa Development (DCCD), Kochi

DCCD(www.dccd.gov.in) will be responsible for implementing, coordinating and monitoring activities relating to plantation crops, excluding coconut and arecanut and will also be responsible for organizing National level training programmes, seminars & workshops on cashew and cocoa on regular intervals.

Directorate of Arecanut and Spices Development (DASD), Calicut

DASD will be responsible for implementing, coordinating and monitoring the activities on development of arecanut, spices, and aromatic plants and will be responsible for organizing National level training programmes, seminars and workshops on Arecanut, spices and medicinal & aromatic plants on regular intervals.

National Committee on Precision Agriculture & Horticulture (NCPAH), New Delhi

NCPAH(www.ncpahindia.com) will be responsible for coordinating and monitoring activities relating to micro irrigation, precision farming and hi-tech horticulture implemented through SHMs and Precision Farming Development Centres (PFDCs).

National Horticulture Research & Development Foundation, Nashik

National Horticulture Research & Development Foundation (NHRDF), Nashik (www.nhrdf.com) will be responsible for implementing programmes relating to development of vegetables including production and supply of quality seeds.

National Bee Board (NBB)

National Bee Board (NBB)(www.nbb.gov.in) will be responsible for providing technical support as well as implementation of promotional programmes relating to beekeeping.

National Seeds Corporation, New Delhi

National Seeds Corporation (NSC) (www.indiaseeds.com) will be responsible for taking up programmes for production and supply of good quality seed and planting material.

Annexure IX (contd.)

National Research Centre for Citrus, Nagpur

National Research Centre for Citrus (NRCC), Nagpur (www.nrccitrus.nic.in) will be implementing the mission mode programme on Technology Mission on Citrus.

Hindustan Insecticides Ltd. (HIL)

HIL (www.hil.gov.in) will be responsible for production and supply of good quality seed and planting material.

National Institute for Agricultural Extension Management (MANAGE), Hyderabad

MANAGE (www.manage.gov.in) will be responsible for taking up HRD related programme for training field functionaries under NHM and HMNEH.

Agricultural and Processed Food Products Export Development Authority (APEDA), New Delhi

APEDA, (www.apeda.gov.in) Ministry of Commerce will be involved in promoting coordinated development of Agri-Export Zones (AEZ) for horticultural crops and coordinate with MIDH, for promoting export of horticulture crops.

Directorate of Marketing & Inspection (DMI), New Delhi

DMI will be responsible for providing market intelligence and monitoring of programmes relating to marketing of horticulture crops (www.agmarknet.nic.in).

Ministry of Food Processing Industries (MOFPI), New Delhi

MFPI (www.mofpi.nic.in) will extend its support to establishment of Food Processing units in clusters promoted in MIDH and offer its technical support and assistance, especially in HMNEH areas.

National Medicinal Plants Board (NMPB), New Delhi

NMPB (www.nmpb.nic.in) would implement its scheme relating to development of medicinal plants in coordination with NHM.

National Centre for Cold Chain Development (NCCD)

NCCD (<http://nccd.gov.in>) will guide policy and set standards for development of integrated cold chain in the country, for perishable fruits, vegetables and other allied agricultural commodities to link with markets and also work in close collaboration with industry and other stake holders.

Fresh & Healthy Enterprises Ltd. (FHEL), New Delhi

FHEL (www.fhel.co.in) will be responsible for carrying out feasibility studies and preparing DPRs for integrated cold chain for horticulture commodities, involving long distance haulage by Railways.

Directorate of Marketing & Inspection (DMI), New Delhi

DMI will be responsible for providing market intelligence and monitoring of programmes relating to marketing of horticulture crops (www.agmarknet.nic.in).

SPICES BOARD

Spices Board will extend its support for the development and worldwide promotion of Indian spices.

ALL ICAR HORTICULTURE INSTITUTES

They will assist to undertake basic, strategic, anticipatory and applied research to enhance productivity, quality, utility and sustainability of fruits, vegetables, ornamentals, medicinal crops and mushroom.

MANALANOBIS NATIONAL CROP FORECAST CENTRE (MNCFC), PUSA, NEW DELHI

MNCFC will assist for applications of space and geospatial technology in various domains of agriculture.

KRISHI VIKAS SAHAKARI SAMITI LIMITED (KVSSL), GURUGRAM, HARYANA

KVSSL will assist to intensify research and create agro inputs that are bio- degradable, eco- friendly, safe to use to increase the yield and protecting the crop. It will also guide the farmers regarding use of Agri-inputs to grow crops more effectively and efficiently.

NATIONAL CENTRE FOR ORGANIC AND NATURAL FARMING (NCONF), GHAZIABAD.

NCONF will assist in promotion of chemical free agricultural systems like organic, natural, regenerative etc, farming in the country through capacity building of stakeholders

NATIONAL INSTITUTE OF PLANT HEALTH MANAGEMENT (NIPHM),

NIPHM will assist to promote sustainable horticulture by focusing on plant health management in fruits, vegetables, and plantation crops.

Annexure X

DETAILS OF MANDATORY COMPONENTS UNDER NEW NCCD ENGINEERING GUIDELINES AND MINIMUM SYSTEM STANDARDS

In reference to NCCD's new **Engineering Guidelines and Minimum System Standards for Implementation in Cold Chain Components 2025**, in the new subsidy components all the components mentioned under scheme are **mandatory**. All these components have been categorised as mandatory subsidy component/ subsidy components in the NCCD's new Engineering Guidelines and Minimum System Standards.

Importantly, the components (**Detailed description in NCCD guidelines chapter 28**) like – (**Specified in each chapter as Unified Control System**)

1. **Unified Control System** is a centralized digital platform recommended in the **NCCD Guidelines** to integrate, monitor, and control various components of cold chain facilities. Its primary utility lies in ensuring **real-time visibility, efficiency, safety, and sustainability** of cold storage and associated cold chain operations.

Key utilities include:

1. **Centralized Monitoring:** Provides a single point of control for multiple cold rooms, ripening chambers, pack houses, reefer vehicles, and other cold chain components.
2. **Quality Assurance:** Maintains precise **temperature and relative humidity (RH)** conditions.
3. **Energy Optimization:** Can tracks power consumption and controls refrigeration cycles.
4. **Data Logging & Traceability:** Stores historical data for audits, quality certifications.
5. **Alarm & Alerts:** Generates real-time alarms for deviations.
6. **Remote Access:** Enables monitoring and control via mobile or web platforms.
7. **Integration with IoT & Logistics:** Facilitates seamless data exchange between cold storages various components and operations

WORKING OF UNIFIED CONTROL SYSTEM (UCS):

The UCS integrates **field devices (sensors, actuators, controllers)** with a **central server/cloud platform** to ensure continuous and automated management of cold chain operations through:

1. Sensors
2. Data Transmission
3. Processing & Analysis:
4. Control Actions:
5. User Interface:
6. Reporting & Alerts:

UNIFIED CONTROL SYSTEM (UCS) FOR REEFER VEHICLES:**Utility**

- Maintains required **temperature & RH** during transit.
 - Provides **GPS tracking** for route monitoring & geo-fencing.
 - Generates **alerts** for deviations (temp, RH, door, fuel, breakdowns).
 - Ensures **traceability & compliance** through data logging.
 - Optimizes **fuel and energy use** for cost savings.
 - Auto-regulation of compressor & fans.
 - Remote override of set-points.
 - Alerts for temp deviation, door misuse, route diversion, or fuel theft.
 - Predictive maintenance alerts.
2. **Automated Computerised System** for labelling is designed to bring transparency, reliability, and efficiency across the horticulture supply chain.

UTILITY:

The system ensures end-to-end visibility of produce movement from farm to market. By enabling product-level identification through **QR/Bar Code labelling**, it enhances consumer confidence, facilitates quality assurance, and supports market access for farmers. The system also serves as a valuable tool for regulators and policymakers by creating a reliable digital record of produce arrivals, thereby improving monitoring, certification, and compliance with food safety standards. Furthermore, it helps exporters meet international traceability requirements, opening avenues for global trade.

WORKING:

- At the **point of arrival in Collection Aggregation Centres and Cold Storages**, the produce is registered into the system.
- Using the integrated software, a **QR/Bar code label** is generated for each lot/consignment.
- The label captures essential details such as:
 - o Farmer's information (name, location, contact)
 - o Date and time of arrival
 - o Variety of the crop
 - o Batch/lot identification number
- This label accompanies the produce throughout subsequent handling, storage, and transportation stages.
- At each node in the cold chain, the code can be scanned to retrieve and update data, ensuring a continuous and tamper-proof digital trail.

Annexure X

- The information becomes easily accessible to supply chain stakeholders—including aggregators, processors, exporters, and consumers—through a simple scan.

IMPORTANT CONSIDERATIONS:

1. By combining automation with digital records, the traceability system not only reduces chances of mislabelling or data loss but also strengthens the overall **integrity of the cold chain ecosystem**.
2. To further create a robust and resilient cold chain ecosystem, NCCD is already conducting an infrastructure study and also digitalising the data under various mobile applications viz. Bharat Sheet Mission, traceability and QR etc.
3. The **Sheet Bharat Mission application** being developed by needs Digital Integration (**Unified Control System & Automated Computerised System**) by integrating **IoT automation and end-to-end traceability**, making it a smart cold chain platform.
4. GPS-enabled reefer vehicles with live tracking data can streamline logistics, while crate-level scanning ensures full traceability from loading to delivery. Automated alerts for temperature deviations or delays, along with analytics dashboards, will improve transparency, reduce post-harvest losses, and help NCCD monitor utilization and compliance across the network, ultimately boosting farmer income and trust in the system.

The introduction of **Unified Control Systems (UCS)** and **Automated Computerised Systems** under the new NCCD Engineering Guidelines is a strategic step towards creating a **robust, resilient, and future-ready cold chain ecosystem in India**. While UCS ensures operational efficiency, energy savings, predictive maintenance, and real-time monitoring, the Automated Computerised System guarantees transparency, accountability, and product-level traceability.

Together, these digital interventions will not only minimize post-harvest losses and enhance food safety but will also **increase productivity, improve farmer incomes, build consumer confidence, and open new avenues for export markets**. By integrating these components with national digital platforms such as **Sheet Bharat Mission**, India is positioned to establish a modern, sustainable, and globally competitive cold chain network.

It is therefore requested to kindly ensure that these components as described above under Unified Control System & Automated Computerised System along with all other components mentioned under Mandatory Subsidy Components/ Subsidy Components Details should be made mandatory on all projects and ensured that these are clearly stated in the Basic Datasheets and installed at the project sites.

DETAILS OF THE CLARIFICATIONS/CORRECTIONS WITH REFERENCE TO THE NCCD'S GUIDELINES AND TECHNICAL STANDARDS TITLED – “ENGINEERING GUIDELINES AND MINIMUM SYSTEM STANDARDS FOR IMPLEMENTATION IN COLD CHAIN COMPONENTS”:

Comp. No.	Description in new Engineering Guidelines	Correction
C-15 (Ripening Chamber)	<u>Chapter 20 - on page no. 187:</u> The cold room insulation should be PUF/PIR or any other new environment friendly insulating material of thickness min. 100 mm sandwiched in either pre-painted GI (0.45 mm Min. thickness) or SS (food grade SS-306) sheets.	<u>Chapter 20 - on page no. 187:</u> The cold room insulation should be PUF/PIR or any other new environment friendly insulating material of thickness min. 60-120 mm sandwiched in either pre-painted GI (0.45 mm Min. thickness) or SS (food grade SS-306) sheets.
C-1 (Farmgate Packhouse)	<u>Chapter 5 - on page no. 41:</u> Farm Gate Standalone Cold Storage The rationale is to provide short term storage which is able to help the farmer etc. in terms of curtailing the economic loss. In this case, in either of the three options only one can be chosen with capacity maximum upto 10MT/project-	<u>Chapter 5 - on page no. 41:</u> Farm Gate Standalone Cold Storage The rationale is to provide short term storage which is able to help the farmer etc. in terms of curtailing the economic loss. In this case, out of following options only one can be chosen for construction of single chamber of max. capacity 10MT/project-
C-12 (Modernisation)	<u>Chapter 23 - on page no. 222:</u> <u>For NHM:</u> Modernisation (Synthetic Refrigerant): Change of refrigerant and retrofitting a) For GWP range 500 to 1000 b) For GWP range 500 to 1000 <u>Page no. 224</u> <u>For NHB:</u> Modernisation (Synthetic Refrigerant): Change of refrigerant and retrofitting a) For GWP range 500 to 1000 b) For GWP range 500 to 1000	<u>Chapter 23 - on page no. 222:</u> <u>For NHM:</u> Modernisation (Synthetic Refrigerant): Change of refrigerant and retrofitting a) For GWP range 500 to 1000 b) For GWP range 1000 to 1500 <u>Page no. 224</u> <u>For NHB:</u> Modernisation (Synthetic Refrigerant): Change of refrigerant and retrofitting a) For GWP range 500 to 1000 b) For GWP range 1000 to 1500

It is also important to note that Variable Frequency Drives (VFDs) are mandatory under Unified Control System component. For the projects where three (3) number of compressors are proposed, it is mandatory to install two (2) number of VFDs.



बागवानी मिशन
Horticulture Mission

Horticulture Division

Department of Agriculture & Farmers Welfare
Ministry of Agriculture & Farmers Welfare,
Krishi Bhavan, New Delhi
www.midh.gov.in