

**National Horticulture Board**  
**Ministry of Agriculture**  
**Government of India**  
**September, 2014**

Operational Guidelines

**National Horticulture Board**

**APPENDIX- 1**

**COST NORMS AND PATTERN OF ASSISTANCE UNDER MIDH FOR NATIONAL HORTICULTURE BOARD RELATED ACTIVITIES DURING XII PLAN:**

S.No.	Item	Cost Norms*	Pattern of Assistance#
<b>A.</b>	<b>Development of Commercial Horticulture ##</b>		
A.1	Commercial Horticulture Development in open field conditions, including components viz planting material, plantation, irrigation, fertigation, precision farming, GAP etc.	Rs. 75.00 lakh/per project (Rs 125.00 lakh for date palm, olive and saffron) for projects covering area over 2 ha.	Credit linked back ended subsidy @ 40% of project cost limited to Rs. 30.00 lakh per project in general area and @ 50% of project cost limited to Rs. 37.50 lakh for NE and Hilly and scheduled areas.  Component-wise/crop-wise cost norms are given at Appendix - 1. Add on component given in appendix-1-A may be added in project mode within over all cost ceiling.
A. 2	Commercial Horticulture Development in protected cover.	Rs 112.00 lakh per project covering area above 2500 Sq.mt.	Credit linked back-ended subsidy @ 50% of cost limited to Rs.56.00 lakh per project.
<b>Protected cultivation:</b>			
<b>1. Green House structure:</b>			
	(a) Fan & Pad system	Rs. 1400/Sq. m and Rs. 1610/Sq. m for hilly areas	50% of cost for above 2500 Sq.m
	(b) Naturally Ventilated System		
	(i) Tubular Structure	Rs. 844/Sq. m and Rs.970/Sq. m for hilly areas.	50% of cost for above 2500 Sq.m
	ii) Wooden structure	Rs. 540/Sq. m and Rs. 621/Sq. m for hilly areas	50% of cost for above 2500 Sq.m
	iii) Bamboo structure	Rs. 450/Sq. m and Rs. 518/Sq.m for hilly areas	50% of cost for above 2500 Sq.m
<b>2. Shade Net House:</b>			
	(a) Tubular structure	Rs. 710/Sqm and Rs. 816/Sqm for hilly areas	50% of cost for above 2500 Sq.m
	(b) Wooden structure	Rs. 492/Sqm and Rs. 566/Sqm for hilly areas	50% of cost for above 2500 Sq.m
	(c) Bamboo structure	Rs.360/Sqm and Rs.414/Sqm for hilly areas	50% of cost for above 2500 Sq.m
	3.Plastic Tunnel	Rs.60/Sq.m and Rs.75/sq.m for hilly area	50% of cost for above 2500 Sq.m
4	Walk in Tunnel	Rs.600/ Sq. m	50% of cost for above 2500 Sq.m
5	Anti Bird/Anti Hail Nets	Rs.35/Sq.m	50% of cost for above 2500 Sq.m

Sr No	Item	Cost Norms*	Pattern of Assistance#
6	Cost of Planting Material and cultivation of High Value Vegetables grown in Poly House/Shade net House	Rs.140/Sq.m	50% of cost for above 2500 Sq.m
7	Cost of Planting Material and cultivation of Orchid and Anthurium grown in Poly House/Shade net House	Rs.700/Sq.m	50% of cost for above 2500 Sq.m
8	Cost of Planting Material and cultivation of Carnation & Gerbera grown in Poly House/Shade net House	Rs.610/Sq.m	50% of cost for above 2500 Sq.m
9	Cost of Planting Material and cultivation of Rose & Liliun grown in Poly House/Shade net House	Rs.426/Sq.m	50% of cost for above 2500 Sq.m
10	Plastic Mulching	Rs.32000/Ha and Rs.36800/Ha for Hilly Areas	50% of cost for above 2500 Sq.m
A.3	Integrated Post Harvest Management Projects e.g. Pack House, Ripening Chamber, Refer Van, Retail Outlets, Pre-cooling units, Primary Processing etc.	Rs. 145.00 lakh per project. The add-on components of pre-cooling, pack house, grading, packing, cold room can be taken up as individual components.	Credit linked back ended subsidy @ 35% of cost limited to Rs.50.75 lakh per project in general areas and @ 50% of project cost limited to Rs. 72.50 lakh per project in NE, Hilly ans scheduled areas, ensuring backward and forward linkage.
<b>Component wise cost norms of Integrated Post Harvest Management</b>			
1	Pack house	Rs. 4.00 lakh/unit with size of 9Mx6M	50% of the capital cost.
2	Integrated pack house with facilities for conveyer belt, sorting, grading units, washing, drying and weighing.	Rs. 50.00 lakh per unit with size of 9Mx18M	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas for individual entrepreneurs.
3	Pre-cooling unit	Rs. 25.00 lakh/unit with capacity of 6 MT.	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas for individual entrepreneurs.
4	Cold room (staging)	Rs. 15.00 lakh/ unit of 30 MT capacity	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas
5	Mobile pre- cooling unit	Rs. 25.00 lakh	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas
6	Ripening Chamber	Rs. 1.00 lakh/MT (11 CuM of chamber volume shall be equivalent of 1 MT of storage capacity)	Credit linked back-ended subsidy @ 35% of the cost of project in general areas and 50% of cost in case Hilly & Scheduled areas

## Cost norms for protected cultivation under NHB Scheme:

Cost

Rs Lakh per acre

Sr No	Crop	Cost of poly house with drip & fogger system *	Cost of cultivation	Cost ceiling per acre with add on components in project mode
1	Anthurium & Orchid	33.76	28.00	70.00
2	Rose, Liliun Chrysanthemum	33.76	17.04	60.00
3	Carnation & gerbera	33.76	24.40	66.00
4	Hi- value vegetable under poly house	33.76	5.60	47.00
5	Hi-value vegetable under shade net	28.40	5.60	40.00

Cost of Tabular Structure in plain area. In Hilly area cost of polyhouse will be 15% more.

- Wherever cost norms are not given, cost norms available under MIDH scheme for similar activity shall be followed. In case norms are not available under MIDH schemes also, cost appraised by bank as per bank norms or approved by Competent Committee of NHB shall apply till cost norms are prepared.
- In project mode, applicant may opt for add on components as per norms given Appendix-1C but unless otherwise specified, cost ceiling, as prescribed for each crop/activity shall be applied where cost of add on components exceeds prescribed ceiling.

## Appendix –1-C

## Norms for Technology Add-on components and other essential components of Integrated Commercial Horticulture projects:

Sr No	Item	Description	Admissible Cost
<b>Cut off te for implementation</b>			
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. 50,000/- per acre.
I(i)	Land Development * #	Includes cost of Land levelling, 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. 50,000/- per acre.
II	Cultivation expenses* #	Includes cost of Planting material, cost of input (labour , fertilizer and manures,	As per MIDH (NHM) cost norms as given at Appendix- 1

		pesticides etc)	
III	Drip system with internal pipeline	Component includes mainline, valve, backflow preventer pressure regulator, filter, tubing adapters and fittings, drip tubing, emitters and an end cap.	<ul style="list-style-type: none"> <li>• Actual or Rs. 20,000/- per acre for plant density up to 200 plants.</li> <li>• Actual or Rs. 25,000/- per acre for plant density &gt; 200 plants / acre</li> <li>• Sprinkler @ Rs 15,000/ per acre</li> </ul>

Operational Guidelines

**National Horticulture Board**

Sr No	Item	Description	Admissible Cost
III(i)	Irrigation infrastructure excluding micro irrigation * #	Irrigation infrastructure like tube-well/bore well/open well, pipeline, water harvesting structure, water tank etc, admissible only if newly created with loan component	<ul style="list-style-type: none"> <li>• Actual or up to Rs. 50,000/- per acre for open field cultivation.</li> <li>• Rs. 4.00 lakh per project in case of protected cultivation.</li> </ul> <p>Component-wise cost norms will be as under:</p> <ol style="list-style-type: none"> <li>1. Tube-well – up to Rs 2.50 lakh per unit.</li> <li>2. Water harvesting structure- @ Rs.100/- CuM. with use of minimum 300 microns plastic films or RCC lining. <ul style="list-style-type: none"> <li>1. Cost of non lined ponds/ tanks will be 30% less.</li> <li>1. Pipe line-Rs 150/- per running meter only from source (min.4” diameter) of irrigation to production unit.</li> </ul> </li> </ol>
V	Civil Infrastructure *#	Includes Functional Pack House/On farm collection unit and labour quarter	<ol style="list-style-type: none"> <li>1. Functional Pack house @ Rs. 4.00 Lakh/unit with size of 9 x 6 Meter. (Pro rate basis for lower size) <ul style="list-style-type: none"> <li>1. Labour Quarter/ Store room @Rs. 20,000/- per acre Maximum up to 3.00 lakh. Cost norm as per pack house.</li> </ul> </li> </ol>
VIII	Support system for Grapes (trellis, telephone, bawar and other system etc. *	Permanent structure made up of MS angles and stainless steel wire.	Rs. 1,50,000/- per acre
IX	Plastic Mulching * ##		Rs.12800/- per acre and Rs.14729/- acre for hilly areas
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	Rs.100/- per Sq. m.

### Components categorization:

\* Commercial Horticulture, within overall cost ceiling.

# Protected Cultivation, within overall cost ceiling.

# # Over and above overall cost ceiling.

Any other add on component as may be decided by Project Approval Committee for inclusion of new item(s) may be suitably incorporated from time to time.

#### Operational Guidelines

#### National Horticulture Board

#### B. Capital Investment Subsidy Scheme for Construction/ Expansion/ Modernization of Cold Storage and Storages for Horticulture Products:

Sr No	Item	Cost Norms*	Pattern of Assistance#
1	Cold storage units Type 1 - basic type with single temperature zone	NHB to take up projects with Capacity above 5000MT up to 10000MT as per following rates. <ul style="list-style-type: none"> <li>• @ Rs. 8000/ MT for capacity up to 5000 MT</li> <li>• @ Rs. 7600/ MT for capacity between 5001 to 6500 MT.</li> <li>• @ Rs. 7200/MT for capacity between 6501 to 8000 MT.</li> <li>• @ Rs. 6800/MT for capacity between 8001 to 10000 MT.</li> </ul>	Credit linked back-ended subsidy @ 35% of the cost of project (50% in NE, Hilly Areas and scheduled areas) <b>for capacity above 5000 MT.</b> For capacity below 5000 MT, it will apply in NHM.
2	Cold Storage Unit Type 2- with multiple Temperature zones and basic material handling equipment.	NHB to take up projects with Capacity above 5000 MT up to 10000 MT as per following rates. <ul style="list-style-type: none"> <li>• @ Rs.10000/ MT for capacity up to 5000 MT</li> <li>• @ Rs. 9500/ MT for capacity between 5001 to 6500 MT.</li> <li>• @ Rs. 9000/MT for capacity between 6501 to 8000 MT.</li> <li>• @ Rs. 8500/MT for capacity between 8001 to 10000 MT.</li> </ul>	Credit linked back-ended subsidy @ 35% of the cost of project (50% in NE, Hilly Areas and scheduled areas) <b>for capacity above 5000 MT.</b> For capacity below 5000 MT, it will apply in NHM.
3	Cold Storage Units Type 2- with add on technology for Controlled Atmosphere	NHB to take up projects with Capacity above 5000MT up to 10000MT as per Type 2 rates given above.  Additional Rs. 10,000/ MT for add on components of controlled atmosphere technology. (Components details at Appendix-II)	Credit linked back-ended subsidy @ 35% of the cost of project (50% in NE, Hilly Areas and scheduled areas) <b>for capacity above 5000 MT.</b> For capacity below 5000 MT, it will apply in NHM.
4	Technology induction and modernization of cold-chain	Max Rs 500.00 Lakh @ Rs.5000/MT for maximum capacity of 10000 MT. (Component details at Appendix- II)	Credit linked back-ended subsidy @ 35% of the cost of project (50% in NE, Hilly Areas and scheduled areas) <b>for capacity above 5000 MT.</b>

			For capacity below 5000 MT, it will apply in NHM.
5	Refrigerated Transport vehicles	Rs. 30.00 lakh for 15 MT, and prorate basis for capacities between 9 to 15 MT (3 cubic meters (cum) (104 cubic feet (cft). of chamber volume shall be equivalent of 1 MT of storage capacity	Credit linked back-ended subsidy @ 35% of cost (50% in NE, Hilly Areas and scheduled areas)

## Operational Guidelines

## National Horticulture Board

Sr No	Item	Cost Norms*	Pattern of Assistance#
<b>C. Technology Development and Transfer for Promotion of Horticulture:</b>			
1	Setting up of block/ mother plant and root stock nursery (Area above 4 ha)	Rs. 100.00 Lakh/ha including virus indexing, tissue culture lab etc	Project based – 100% and only through Govt. agency/Public Sector. The component includes mother block of scion and root stock, infrastructure for production of disease free planting material, creation of Poly house, Green House, net house, screen house, mist chamber, hot beds sterilization of media, working shed, tissue culture lab, referred lab, virus indexing facility, quality control lab, weather station, water supply, irrigation facility, fertigation unit, electric supply with generator, ETP, farm equipment/farm mechanization tools, portrays, root trainer, container, computer system for data management and analysis etc.

### Appendix -1-D

**Technology Add-on for CA and Modernization (Subject to maximum of Rs. 5.00 crore for CA equipment and Rs. 2.50 crore for Modernization):**

Sr No	Item	Description	Admissible Cost
<b>A. Add-on Technology for CA:</b>			
1	CA Generator*	Inclusive of sensors, pressure equalising equipment, controls	Rs. 1.25 crore per unit, maximum 2 generators.
2	Specialised CA Doors*	Add-on specialisation to storage doors for positive pressure chambers.	Rs. 2.5 lac per door, maximum 20 doors.
3	CA Tents#	Low cost enclosure of	As per original invoice,

		polyethylene PVC, Mylar or other impermeable body	maximum 5 enclosures.
4	Programmed Logic Controller (PLC) equipment#@	Electronic and electrical logic controls for machinery & equipment.	50% of cost as per original invoice, maximum Rs 10 lakh.
5	Dock Levellers#@	In existing or new storages	Max Rs. 7 lakh per unit, max 5 units
<b>B. Modernization</b>			
1	Warehouse Development & Regulatory Authority (WDRA) / Negotiable Warehouse Receipt (NWR) system, equipment#@	Computers and printers & software for use with NWR of WDRA	100% of cost as per original invoice, maximum Rs. 2 lakh
2	Specialised Packaging#	Automated packaging lines for fruits & vegetables with farm code labelling	100% of cost as per invoice, maximum Rs. 15 lakh per project

## Operational Guidelines

## National Horticulture Board

Sr No	Item	Description	Admissible Cost
3	High Reach Material Handling Equipment (MHE) *@	Specialised material Handling equipment	Rs. 17 lakh per unit, for max 2 units.
4	Dock Levellers	In existing or new storages	Max Rs. 7 lakh per unit, max 5 units
5	Modernisation of refrigeration@	For upgrading of evaporator system, compressor system	50% of cost as per original invoice, maximum Rs. 100 lakh @ Rs. 2500/MT
6	Modernisation of insulation@	For repair or modernising of cold chamber insulation	50% of cost as per original invoice, maximum Rs.100 lakh @ Rs. 1500/MT
7	Reefer Container#	Reefer container for use on existing chassis trailers	Max Rs. 6 lakh per 9MT (20 foot container)
8	Advanced Grader*#@	Computerised, Optical Grading Lines	100% of cost as per original invoice, max Rs. 75 lakh per line
9	Stacking system*#@	Racking system Bins, Pallets	100% of invoice cost, max Rs 2000/MT
10	Retail Shelf#	Temperature controlled retail cabinets	Maximum Rs. 10 lakhs per establishment
11	Alternate Technology#@	Vapour Absorption, Phase change material, Solar PV panels or Solar Thermal sys	100% of cost as per invoice, maximum Rs. 35 lakhs per project

Components Categorization : \* CA Add-ons:# Other Add-ons: and @ Modernization

Maximum permissible subsidy shall be subject to original invoice and in no case more than Rs. 7.50 Crore, whichever is lower. For add-on technology, subsidy shall be provided as credit linked back ended at 35% of the capital cost.

Technology offers inherent value for operators and the admissible cost norms are designed to incentivize induction and not to serve as venture funding.

Any other components as maybe decided by Technical Committee when new technology or items that reduce carbon footprints are introduced. For individual unit components like insulation, graders, CA generator, solar panels - NCCD shall publish guidelines for use by appraising agency.