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National Horticulture Board

1. Introduction

National Horticulture Board (NHB) was set up by the Government of India in 1984 as an autonomous society under the Societies Registration Act 1860. Board has its Head Quarter in Institutional Area, Sector 18, Gurgaon (Haryana).

The Managing Director is the Principal Executive of NHB who implements various schemes under overall supervision and guidance of the Board of Directors of NHB as well as the Department of Agriculture & Co-operation, Ministry of Agriculture, Govt. of India.

1.1 List of schemes administered by NHB

(i) Development of Commercial Horticulture through Production and Post Harvest Management of Horticulture Crops
(ii) Capital Investment Subsidy Scheme for construction/expansion/modernization of Cold Storages/Storages of Horticulture Produce
(iii) Technology Development and Transfer for promotion of Horticulture
(iv) Market Information Service for Horticulture Crops
(v) Horticulture Promotion Service

1.2 Aims & Objectives of NHB Schemes

The broad aims & objectives of all the above mentioned schemes are as under:-

i) Development of hi-tech commercial horticulture in identified belts and make such areas vibrant with horticultural activity, which in turn will act as hubs for development of horticulture

ii) Development of modern post-harvest management infrastructure as an integral part of area expansion projects or as common facility for cluster of projects

iii) Development of integrated, energy efficient cold chain infrastructure for fresh horticulture produce,

iv) Popularization of identified new technologies/tools/techniques for commercialization/ adoption, after carrying out technology need assessment

v) Assistance in securing availability of quality planting material by promoting setting up of scion and root stock banks/mother plant nurseries and carrying out accreditation/rating of horticulture nurseries and need based imports of planting material.

vi) Promotion and market development of fresh horticulture produce.

vii) Promotion of field trials of newly developed/imported planting materials and other farm inputs; production technology; PHM protocols, INM and IPM protocols and promotion of applied R&D programmes for commercialization of proven technology.
viii) Promotion of applied R & D for standardizing PHM protocols, prescribing critical storage conditions for fresh horticulture produce, benchmarking of technical standards for cold chain infrastructure etc.,

ix) Transfer of technology to producers/farmers and service providers such as gardeners, farm level skilled workers, operators in cold storages, work force carrying out post harvest management including processing of fresh horticulture produce and to the master trainers.

x) Promotion of consumption of horticulture produce and products.

xi) Setting up of Common Facility Centers in Horticulture Parks and Agri-Export Zones.

xii) Strengthen market intelligence system by developing, collecting and disseminating horticulture database.

xiii) Carrying out studies and surveys to identify constraints and develop short and long term strategies for systematic development of horticulture and providing technical services including advisory and consultancy services.
General Guidelines for all the Schemes

2.1 Procedure for filing applications

Detailed procedure for filing applications for financial assistance under all schemes, including on-line applications, cost of application, inspection of projects, scrutiny norms and procedure for scrutiny of project proposals, communication of various sanctions and approvals and record keeping shall be as prescribed by the Board of Directors from time to time.

2.2 Procedure for in principle approval, appraisal of projects by NHB and sanction of financial assistance

Giving in-principle approval of Letter of Intent (LoI), appraisal of project proposals, finalizing normative cost of model projects and their components, sanction of financial assistance etc. shall be carried out as per the procedure prescribed by the Board of Directors from time to time.

2.3 Date of coming in to force: The Scheme guidelines shall be effective from 1st May 2010.

2.4 Eligible Organizations: Unless otherwise specified, organizations/promoters, such as NGOs, Association of Growers, Individuals, Partnership/Proprietary Firms, Companies, Corporations, Cooperatives, Agricultural Produce Marketing Committees, Marketing Boards/ Committees, Municipal Corporations/ Committees, Agro-Industries Corporations, SAU’s and other concerned R&D organizations are eligible to get assistance under all the NHB schemes.

2.5 The details of components and pattern of assistance under various schemes are given in their respective Chapters. The schemes of NHM and NHB will be mutually exclusive and benefit can be claimed only from one scheme for one project. Components, which are assisted under any other central scheme, such as APEDA, MFPI, NMPB etc., shall not be eligible for NHB assistance.
Guidelines for specific schemes
SCHEME-1

Description of components and Pattern of Assistance

I. Production related components: - Credit linked projects relating to establishment of hi-tech commercial production units involving any of the following items are eligible for assistance under this component :-

i) High quality commercial horticulture crops
ii) Indigenous crops / produce, herbs, spices
iii) Aromatic & Medicinal Plants
iv) Seed & Nursery
v) Bio-Technology, micro-biology, bio-chemistry, bio-diversity & tissue culture
vi) Protected cultivators
vii) Bio-pesticides
viii) Organic fertilizers, organic foods, bio-dynamic farming, vermi-compost
ix) Establishment of Hort. Health clinics / laboratories
x) Hydroponics, Aeroponics
xi) Beekeeping and its products
xii) Mushrooms and its products
xiii) Nuts and its products

Pattern of Assistance

Credit linked back-ended subsidy @ 20% of the total project cost limited to Rs 25 lakh per project in general area and Rs 30.00 lakh in NE Region, Hilly and Scheduled areas. However, for capital intensive and high value crops under protected cultivation and open air cultivation of date palm, olive and saffron subsidy will be @ 25% of project cost with ceiling of Rs.50 lakh (33% of project cost with ceiling of Rs.60 lakh for scheduled and hilly areas).

General conditions

i) The above assistance shall be available for projects covering area above four hectares (above 10 acres) in case of open cultivation, and more than 1000 sq. meter in case of protected cultivation.

ii) Credit component as means of finance of the project should be term loan from banking or non banking financial institutions and should be at least 15 % more than the admissible rate of subsidy.

iii) Projects relating to setting up of new production units shall be appraised to ensure and enable entrepreneur to incorporate essential hi-tech components in the form of planting material, plantation, irrigation, fertigation, precision farming, on farm PHM/ primary processing related infrastructure, GAP etc.; and to that extent, the project shall be integrated in nature.

iv) Normative cost of various components shall be prescribed by NHB.
II. PHM/Primary Processing related components: - credit linked projects involving the following items are eligible for assistance under this component :-

i) Washing, drying, sorting, grading, waxing, packing, palletizing, freezing units etc.
ii) Pre-cooling units / Cool Stores
iii) Reefer Van / Containers
iv) Specialized Transport Vehicle
v) Retail outlets
vi) Auction platform
vii) Ripening / curing chamber
viii) Market yards / rope ways
ix) Irradiation / Vapour Heat Treatment unit
x) Primary processing of products (fermentation, extraction, distillation, juice vending, pulping, dressing, cutting, chopping, dehydration etc.)
xii) Natural colour and dyes extraction
xii) Essential oils, perfumery and cosmetics out of horticulture products
xiii) Products out of horticulture waste
xiv) Horticulture ancillary industry for promoting indigenous manufacturing of horticulture related farm tools & machineries, equipments, plastics containers, packaging etc.
xv) Adoption of Quality Assurance Systems (HACCP, TQM, ISO, Euro-GAP etc.)
xvi) Plastic Crates and Bins, Cartons, Aseptic Packaging and Nets

Pattern of Assistance
Credit linked back-ended subsidy @ 40% of the total project cost limited to Rs 50 lakh per project in general area and @ 55% of project cost limited to Rs 60.00 lakh in Hilly and Scheduled areas. Pattern of assistance for plastic crates will be 50% of the total cost.

General conditions for PHM/PP projects
i) Primary Processing and Post Harvest Management related projects shall be implemented either as on-farm projects linked with individual projects of area expansion of commercial horticulture or as a common facility for cluster of new projects of commercial horticulture and existing orchards / farms. Projects relating to introduction of new plant/ machinery/ equipment to effect automation,
introduction of latest processing technology etc. in existing PHM infrastructure may also be considered; however, components covered by regular repairs & maintenance and replacement of old plant & machineries on attaining near zero book value is not to be incorporated. PHM components such as pack-house will be eligible for enhanced rate of subsidy only when infrastructure is as per prescribed level of technology, if any.

ii) Subsidy @ 50% as per prescribed norms will be available for crates and nets (shed and anti-hail only) in integration with commercial horticulture projects of production as one time assistance. Subsidy for crates shall be released only after its actual purchase at appropriate stage, which shall be at stage of fruiting / harvesting. Accordingly, release of subsidy for crates shall be made separately at appropriate stage later.

iii) As financial assistance for plastic crates / bins is given at producers’ end itself and it is aimed to increase producer’s share in consumer-end price of horticulture produce; assistance for plastic crates / bins shall be considered along with a new, credit-linked project of pack-house / ripening or curing chamber / cold storage unit/ primary processing unit or their suitable combination when Producers’ Company / Registered Growers Association / PSU is the promoter of such projects. The proposal shall be considered on merit in view of business model of the project, stocking & stacking system and actual need. But for this, the crates must be integral part of fixed capital investment under such credit linked projects and should be appraised by the lending Bank accordingly. Committee of NHB shall formulate formula for assessing admissible number of crates / bins in respect of any such project.

iv) Shade nets and anti hail nets shall be considered as one time assistance for credit linked project for the benefit of existing commercial horticulture projects of fruit orchards qualifying area norm of above 4 Ha. Assistance in case of CFB Cartons, Aseptic Packaging, Punnets / Poly bags etc shall be available on merit for launching a new horticulture product during its first year and for introduction of horticulture products in a market as one time assistance.

v) Benefit of exclusive components of cold storage scheme shall also be available to the promoters over and above the assistance that will be provided under Commercial Horticulture Scheme to set up integrated projects for production and PHM components.
vi) Selection of units for promotion of indigenous manufacturing of items covered by item II(xiv) shall be decided on merits by a Committee of NHB.

vii) Credit component as means of finance of the project should be term loan from banking or non banking financial institutions and should be at least 15 % more than the admissible rate of subsidy.

viii) Projects relating to setting up of new production units shall be technically and financially appraised to ensure and enable entrepreneur to incorporate latest available technology to take care of quality of produce, economy in cost of production, energy saving, safety and environmental concerns.

ix) Projects under this scheme component may be integrated as part of new Production Related projects or in integration with existing Production Related projects set up with or without assistance under NHB schemes and falling under category of Production related Components; certain components may be on-farm and other may be off-farm; in addition, such projects may be set up by a service provider/ trader / processors with proper backward linkage with production of fresh horticulture produce.

x) Normative cost for various components shall be prescribed by NHB from time to time.

**Detailed instructions for making application for LOI, formats and other relevant information are given in Annexure-I (Pages 23 to 61 of this booklet)**
SCHEME-2
Capital Investment Subsidy Scheme for construction/ expansion/ modernization of Cold Storages/Storages of Horticulture Produce

Description of components and Pattern of Assistance

Components: - Credit linked projects relating to Cold Storages including Controlled Atmosphere (CA) and Modified Atmosphere (MA) Stores, pre-cooling units, other Storages for onion, etc., their modernization are eligible for assistance under this component.

Pattern of Assistance: - The assistance will be as credit linked back-ended subsidy @ 40% of the capital cost of project in general areas and 55% in case of Hilly & Scheduled Areas for a maximum storage capacity of 5000 MT per project for item (i) to (iv) below: -

General conditions for cold storage projects

i) Multi-chamber cold storages with mezzanine floors of RCC and or wooden structure for products not requiring pre-cooling, temperature range 0°C plus to 16°C or above with fin-coil cooling system, with control system for humidity (RH 80% to 95% in general and 65%-70% for onion & garlic or appropriate level for seed storage etc) and appropriate handling of stored commodity with safety system against accidents of fire, leakage of refrigerant etc. Minimum of two chambers, Standard insulation material, with civil structure, insulations and cooling system as per prescribed Standards - @ Rs 6,000 per MT

ii) Multi-chamber and Multi-Product cold storage for whole range of horticulture produce but without pre-cooling system (temperature range from -2°C or lower to +16°C plus (with temperature, humidity and CO2 control (RH= 80% to 95% for F & V in general and 65%-70% for onion & garlic or appropriate level for seed storage etc), fin-coil cooling system and energy saving devices for peak and lean load period, heat exchanger with CO2 control system, appropriate technology for control of microorganism / dust mite and mechanical handling of stored commodity such as racks, pallets & forklift / stacker (as per site conditions); bags/ bins and crates/ CFB boxes and also safety devices against accident.

(a) With civil structure/ pre-fabricated engg. Structure, insulation, cooling system etc as per prescribed standards excluding cold storage with mezzanine floors @ Rs 7000/- per MT
(b) With civil structure/ pre-fabricated engg. structure, insulation, cooling system etc. as per prescribed standards (excluding cold storage with mezzanine floors) and having on-farm or off-farm pack house facility of washing/ de-sapping (as per requirement), drying, sorting, grading, waxing, packing etc and pre-cooling @ Rs 8000/- per MT.

iii) Modernization of Cold Storages

a) Up gradation of thermal insulation
b) Up gradation of cooling system, refrigeration, air flow, electric installation, handling devices, safety devices etc. Project based @ maximum 1000/ MT for (i) and up to Rs. 2000/MT for (ii) above

Benefit of (i) and (ii) above may go together for complete modernization.

iv) CA Storages (@ Rs 32,000 per MT)

v) Credit components as means of finance of the project should be term loan from banking or non banking financial institutions and should be at least 15% more than the admissible rate of subsidy.

vi) Only such projects under this component shall be eligible to get financial assistance as per revised norms, which meet prescribed minimum technical standards; this shall be ascertained as per implementation protocols prescribed in this regard.

vii) Rack, pallets and design-appropriate system for mechanized handling are incorporated in above type designs.

viii) In respect of projects, which have addition of components or technically recommended different combinations of components of pre-cooling, pack house etc, the normative cost shall be worked out by the Committee of the Board.

ix) NHB assistance is available only when notified latest technical standards and protocol for the purpose by the Ministry of Agriculture are followed by the beneficiary.

*Detailed instructions for making application for LOI, formats and other relevant information are given in Annexure-II (Pages 62 to 85 of this booklet)*
SCHEME-3
Technology Development and Transfer for promotion of Horticulture

Components
i) Introduction of New Technology
ii) Visit of progressive farmers
iii) Promotional and Extension Activities
iv) Technical know how from India/Abroad
v) Technology Awareness
vi) Organizing/participation in seminars/symposia/exhibitions
vii) Udyan Pandit
viii) Publicity and Films
ix) Awareness for technology up gradation and markets
x) Honorarium to scientists for effective transfer of technology.
xi) Accreditation and Rating of Horticulture Nurseries
xii) Mother Plant Nurseries for pedigreed planting material for fruit crops
xiii) Assistance for Common Facilities in Horticulture Parks/ Agri Export Zones etc.

Description of components and Pattern of Assistance

(I) Introduction of New Technologies
A. Undertaking Pilot Projects for introduction of new farm inputs, new and appropriate technologies for promoting high quality commercial production and or increase in productivity, growth regulation, plant protection.

i) Commercial sustenance shall be the main criteria for selecting such pilot projects.

ii) The project shall have one of the following aspects:-
- Developing prototype for adoption on a commercial scale
- Demonstration and training on new farm inputs/ technology/tool/ equipments etc.

iii) Implementation of technology/concept

iv) Seeds and planting material (imported/indigenous) to be tested preferably on farmers’ field for adoption & commercialization.

v) Funding requirements for each item to be indicated with justification.

B. Development and introduction of new protocols relating to Post Harvest Management, Cold Chain, Primary Processing, Biotechnology and Introduction of New tool/ equipment/ machinery for PHM, storage including cold chain system and handling. Such projects are to be considered on merit with at least one of the following broad considerations:-
i) Increase in efficiency of farm operations, PHM, storage and handling operations,
ii) Reduction in post harvest losses and cost of operation,
iii) Increasing shelf-life of horticulture produce Partner
iv) Contribution to productivity, improvement in overall quality of produce and value addition,
v) Benefit of introduction of such technology over the existing level must be enunciated
vi) It should be relatively advanced tool/ machinery/equipment.

C. R&D projects for solving specific problems relating to production, PHM, packaging, storage, handling and transport would also be considered on merit basis. Project based on indigenous fruit, vegetables, flowers, medicinal and aromatic plants would also be encouraged for promoting domestic market and exports.

D. R&D facilities for bee-keeping and honey production, processing and storage

Assistance under this scheme component is available mainly for applied R & D projects and not for R & D projects, which fall under domain of regular R & D activities of ICAR/ SAU or any other applicant organization. NGO’s are not eligible for assistance for R&D projects.

Pattern of Assistance

a) Introduction of new technologies shall be carried out by NHB by in-house efforts.

b) Committee constituted by the Board may designate any organization as Partner Institution for this purpose and provide grants up to 100% of the cost of project. Quantum of grants for partner institution shall be restricted as follows:-

c) Upper ceiling of Rs. 10.00 lakh in case of projects falling under Category (A)

d) Upper ceiling of Rs 25.00 lakh for projects falling under Category (B), (C) & (D)

e) State Agricultural/Horti. Universities, National Premier Institutes, State Deptt. of Horticulture/Agriculture, PSU’s and other State agencies shall generally be the Partner Institution for transfer and demonstration of proven technology on commercial scale and R&D efforts on specific issues.

f) NHB can avail the services of experts if required for project evaluation for sanctioning such projects.
(II) Visit of Progressive Farmers

Purpose of visits
i. To attend structured crop specific production, PHM, processing and marketing related farmers’ training courses organized by NHB as per its annual action plan, with the help of ICAR institutions, SAUs, KVKs/ATMA Society and any other professional institutions such as MANAGE, NIRD, HTC Pune, TERI, selected international organizations etc. Course shall be designed by NHB and training institution jointly, keeping in view training needs of the participants.

ii. To expose groups of farmers to field demonstrations of technology organized by ICAR Institutions, SAUs, State Horticulture Directorates, etc. on their own farms or on farms of KVKs/ATMA Societies, selected progressive farmers etc. The technology component to be demonstrated should be new and relevant to the group and must be specifically stated.

iii. To participate in exhibitions within Country relating to horticulture production, PHM technology and to display their produce/equipment in stalls provided by NHB

iv. To visit specialized wholesale, terminal markets, modern auction centres / processing unit / storage / PHM infrastructure, etc.

v. To participate in exhibitions and horticulture fairs organized by NHB, crop specific National Research Centres for Horticulture Crops, ICAR Institutions, Agricultural Universities or Colleges / KVKs / State Directorates of Horticulture/ State, PSUs or National Federations like IFFCO, NAFED, Marketing Boards, NEC, Industries Associations or registered and functional Growers Associations, etc.

Conditions for participation
i) NHB shall prepare Annual Action Plan for training and structured field visit / visit to exhibitions, etc. enunciating the objective of such visits;

ii) Selected farmer should be in the age group of 20 to 55 years. He/she should be cultivating the relevant horticulture crops on his own land or intend to establish horticulture farm/garden/ industry and should have applied for assistance under NHB schemes No. 1 or 2
iii) Preference should be given to small, marginal and women farmers and beneficiaries of NHB, NHM and TMNE schemes.

iv) Such farmers should be selected who are willing to share their experiences in workshops / seminars at District and State Level as resource persons.

v) One to two representatives of State department of Agriculture/Horticulture or SAU may accompany farmers’ groups for the assistance of the visiting farmers.

vi) The maximum size of a training group may be, as decided by NHB in consultation with the training institute. However, it should not be of more than 30 farmers including Govt officers.

vii) The selection of farmers to form group will be done by the State Govt. or NHB officer of the concerned State/UT’s who may propose and organize such training / visits.

viii) Travel plan should be made through the shortest practically suitable route of mass public transport.

**Pattern of Assistance**

Assistance shall be limited to ‘to & fro’ rail fare of Sleeper Class by Indian Railways or Second Class Cabin in Shipping Service equivalent to shipping service of Government Organization for A & N and Lakshdweep people, in addition to boarding charges @ Rs. 150/- per day, per farmer. However, farmers from TMNE States (NE & Hilly Areas) shall be considered for air journey from air port near their place of residence limited to airport located in NE States including Sikkim and in Himalayan states.

**(III) Promotional and Extension Activities**

**Components**

i. To organize demonstrations of modern scientific techniques / technologies, package of production and PHM practices at suitable locations / areas by the NHB

ii. To organize demonstrations of improved / high yielding varieties of fruits, vegetables, flowers, ornamental plants etc, by NHB
Implementation

i. A committee of NHB shall examine such proposals

ii. NHB will organize field demonstrations and display for product promotion and market development with or without the help of out-sourced agency / experts.

iii. Demonstration for product promotion and market development by display of horticulture products and farm machinery & tools will be organized by NHB in the form of horticulture fairs, which shall provide the participants an opportunity to display and sale the exhibits. These events shall also provide opportunity to producer farmers to learn from one another’s experience and performance. Selected horticulture-producer-farmers’ associations and their self help groups who adopt prescribed production, PHM, packaging, storage and transportation technology under supervision of NHB or any public sector engaged in organizing farmers groups and so designated by NHB, shall be the Targeted Participants for such horticulture fairs. Similarly ICAR Institutions / SAUs and any other R & D Institution and manufacturer of farm machinery / tools / equipments relating to horticulture development may also be included in targeted participants by selecting them based on requirement of promoting the product intended to be promoted. Scheme Components of Technology Development and Transfer for promotion of Horticulture may be converged with such Horticulture Fairs organized by NHB. ‘Targeted Participants’ shall be encouraged to participate in horticulture fairs by providing them stall space for display of produce for sales and storage space for horticulture produce for participation in the event without rent or tariff for stall space and storage space. One-time assistance for trial use of recommended packaging material and transport of horticulture produce in technically recommended manner from production centre to place of horticulture fair may be given to targeted participants through their group / association or organizing public agency like ICAR Institution / SAU/ Marketing Boards/ Agro Industries Development Corporation, PSU / NERAMAC etc. Boarding & lodging in group on room sharing basis / dormitory in farmers’ hostels run by ICAR institutions / SAU / APMC’s may be provided by NHB for first time participants from Targeted Participants’ groups. Cost towards hiring of venue, stall preparations, decoration of exhibition place, public address system, security, lighting, water supply, ceremonial functions and publicity of event shall be borne by NHB under this component.

(IV) Expert’s Services from India/Abroad

Experts from India / abroad may be engaged by NHB for implementation of the components of the scheme of Technology Development and Transfer
(a) Expert’s Services from Abroad
i) Criteria for selection of experts would be based on technology needs of horticulture sector
ii) Services of Expert (s) would be permitted on individual project basis for a period not exceeding 15 days per year for first two years only
iii) Selection of Experts would be done by a Committee of NHB
iv) Pattern of Assistance- Expenditure on expert’s services for travel and per diem shall be in accordance with the Government of India’s approved rates

(b) Experts from India
Experts from India as consultants may be engaged as per provisions of standing orders in this regard issued by the Government of India. Selection of experts will be as per technology needs of horticulture sector including production, plant protection, post harvest management, storage, cold chain infrastructure, handling, marketing and exports etc.

(V) Technology Awareness
Under this component, extension related events shall be organized with field demonstration of technology and evaluation of extension effort

(a) Implementation
i. Carry out extension for increasing productivity, improving quality of fruits, vegetable and flowers produced to export standards, canopy management, crop husbandry, plant protection and disease control, integrated nutrient management, Integrated pest management, IndiaGAP, organic certification, seed varieties and seed production technology & certification, nursery management, farm mechanization, PHM practices, commodity storage manual, marketing etc. by organizing workshop/seminars / exhibition at the Block / District level,
ii. Such events will be organized by NHB or through ICAR Institutions/ SAUs/ State Departments / PSUs/ KVKs / ATMA Societies / Primary Growers Associations who are engaged in providing services to growers for inputs, credit, marketing, processing or storage etc and generate adequate revenue to manage their day to day affairs without Govt. assistance.
iii. The amount sanctioned for a particular year is required to be spent within the same financial year giving proper justification, unless revalidated.

(b) Pattern of Assistance
Up to Rs.50,000/- per event including cost of organizing field trials of technology on participating farmers’ fields and carrying out programme evaluation, preparation of programme evaluation report and its submission to NHB by the Organizer. Committee of NHB will approve proposals under this component.
(VI) Organization/Participation in Seminars/Workshops/Exhibition, etc. for promotion of Horticulture

(a) Implementation

i) Seminars/workshop/exhibition etc shall be organized at the state, national and international levels for promotion of horticulture.

ii) For State level events NHB / NHM / TMNE beneficiaries from the same State in minimum of 50 in number should be invited in consultation with NHB and State Horticulture Mission (SHM).

iii) For National level event NHB / NHM / TMNE beneficiaries, producer States should be invited for the event by the organizers in consultation with NHB and State Mission Directorates. At least 50 beneficiaries from at least five main producer states would be required for the event.

iv) Such beneficiaries should not be charged any registration fee, etc. and should be provided with same facility as other registered participants.

v) The amount sanctioned for a particular year is required to be spent within the same financial year, unless revalidated.

(b) Pattern of Assistance

i) The financial assistance would be limited up to Rs.3.00 lakh for organizing State Level event, up to Rs. 5.00 lakh for organizing National level event and up to Rs.10.00 lakh per event for International participation (3-5 days).

ii) In case of short duration (1-2 days) seminars, financial assistance would be limited to:

- Rs.1.00 lakh per event for State Level event,
- Rs. 2.00 lakh for National level event and
- Rs 3.00 lakh for International event (for organizations/participation of international event within India).

(c) Manner of Implementation

i) The seminars / workshops / Exhibitions shall be organized primarily for beneficiaries of NHB / NHM and TMNE schemes, however, if such beneficiaries are not available in required number, then other growers of horticulture crops can also be included.

ii) These events will be primarily organized through crop specific National Research Centre for Horticulture Crops, any other ICAR Institution, Agricultural Universities or Colleges / KVKs / State Directorates of Horticulture / State or National Federations of primary level registered and functional Growers Associations, who generate enough resources internally to manage their day to day affairs on their own.
iii) So far as participation in State and National level exhibitions whose organizers have not been extended financial assistance, registered associations of horticulture farmers shall be extended financial assistance of stall space at subsidy up to 50% of tariff for stall, not exceeding Rs. 15000 per stall per Association for display of their fresh or primary processed horticulture produce, for participation in any State and National fairs / exhibitions under this scheme component. NHB may hire stall / exhibition space / display space in selected international fairs / exhibitions, develop the same and make the same available to selected NHB beneficiaries and registered associations of horticulture farmers free of tariff for enabling them to promote their product i.e. fresh horticulture produce for getting direct access to export markets. Total financial implication of such participation per event will be governed by aforesaid approved pattern of assistance given above.

iv) Financial assistance for attending workshops / seminars / training course shall be limited to the event relating to horticulture sector. Training need assessment should be done for the group of participants and duly considered before sponsoring participants to attend the event.

v) Crop specific training to producer farmers, training to operators of PHM infrastructures, processing units, cold storage operators, laboratory technicians etc., shall also be given financial assistance under this subcomponent.

vi) Quantum of financial assistance per participant for per day of training shall be fixed by NHB after assessing cost implication as submitted by the organizing agency.

vii) Financial assistance to group of farmers participating under this sub component will be extended only to such workshops / seminars / training courses, which have not been directly assisted under this subcomponent for organizing the event.

viii) Benefits under scheme subcomponents of Visit of Progressive Farmers may also be made available to participants of above mentioned workshops / seminars/ exhibitions / training courses.

(VII) Udyan Pandit Competitions

i) For organizing such competition, the State Deptt. of Horticulture/Agriculture is required to submit detailed proposal

ii) NHB can also organize such events at national level.

iii) NHB assistance shall be limited to Rs.1.50 lakh per event.

(VIII) Publicity

(a) Publications

i) Brochures and other publicity material for media (news papers/ magazines/ audio/ video) meant for farmers and other beneficiaries to be prepared/published directly for NHB in English/Hindi.

ii) NHB’s news letters.

iii) In house publications of NHB.
iv) Publication of horticulture related books by NHB

(b) Patterns of Assistance

i) For items (i), (ii) & (iii), the work would be handled either by NHB or awarded to the specialized outside agencies empanelled by NHB for printing, formatting, designing and art-work.

ii) For item iv, assistance would be provided by NHB subject to a ceiling up to Rs. 1.00 lakh per beneficiary/organization. However, assistance from NHB shall be duly acknowledged on the front/last page of the publication.

(c) Films: For preparation of fresh video films, detailed script would be submitted to NHB with objectives of audio/Visual & estimated cost details, name of the producers empanelled with DAVP/DAC, expected time of completion, etc.;

i) Script & cost ceiling on the basis of DAVP/Extension Division rates would be scrutinized by a Script Committee of the Board.

ii) MOU on the line of DAVP/DAC shall be signed between NHB & organization/producer

iii) Video films/TV film prepared by NHB shall be screened in various States/UTs during horticulture fairs. Films prepared by Extension Division and ICAR on relevant topics shall also be screened by NHB

iv) Cost of preparation of television programme and its telecast, preferably with the help of Doordarshan, may be met under this scheme component.

(d) Pattern of Assistance- 100% cost to be borne by NHB

(IX) Awareness of technology up-gradation, production development, product promotion and market intelligence Implementation and pattern of assistance

i) Awareness for technology up-gradation, product development, product promotion, exploring improved varieties of fruits, vegetables and flowers and market intelligence, shall be in consonance with the WTO commitments and the same would remain as an integrated component as per the objectives of the scheme for the government officers.

ii) Visits shall be conducted by Officers of NHB, DAC and the State Horticulture Departments/Horticulture Division of SAUs to give exposure to the officers about horticulture industry in the advanced countries.

iii) The team shall comprise of officials from NHB and there shall be one team leader.

iv) The visit should normally not exceed seven days excluding the journey time.

v) The expenditure for travel and per diem shall be borne by NHB as per the Government of India approved rates.
The names of the officers from the State Horticulture Departments shall be finalized by NHB in consultation with DAC with reference to the merit and performance of such officers in the field.

**(X) Honorarium to Scientists for effective transfer of Technology**

**Implementation and pattern of assistance**

a) Scientists/Experts facilitating effective transfer of technology as per the details of schemes covered under Development of High quality commercial Horticulture and Transfer of Technology, shall be eligible for honorarium provided they are engaged by NHB for in-house effort of transfer of technology and have not been paid any other fee / emolument etc for the same services.

b) Grant up to Rs 20,000/- per expert for a group comprising of maximum 5 experts per project would be provided with a ceiling of Rs 1.00 lakh per project.

**(XI) Accreditation and Rating of Horticulture Nurseries**

**Implementation and pattern of assistance**

Accreditation system will be based on rating in a scale of single star to five star with appropriate weightage on production system, nursery management practices and quality of planting material produced. The single star to five star scale rating will be based on following criterion:

Application by the Nursery seeking NHB Recognition, showing layout of Nursery, location of infrastructure components and land utilization plan, details of technically qualified staff in the nursery, major farm machineries and operational manual prepared by nursery for selection and maintenance of mother plants, process followed for production of planting material and management of inventory of planting material.

ii) Assessment of Nursery will be made by a duly constituted Assessment Team on laid down parameters such as location of nursery, mother plants of both scion & rootstock, propagation technology, infrastructure for production, bio-security and disease free conditions, operation manual, quality of man power and trade relations.

iii) Fulfillment of Technical specifications of horticulture planting material and its production procedure as per ICAR document entitled “Handbook of seed and planting material testing manual for Horticulture crops” and technical capability of management,

iv) Availability of required infrastructure as per specified nursery standards of NHM for Model Nursery, such as greenhouses, mist chambers, efficient nursery tools and gadgets, implements and machinery etc.,

v) Adoption of Good Nursery Management practices including proper record keeping

vi) Any other condition stipulated by NHB

vii) The process of carrying out accreditation and rating of horticulture nurseries will be as per protocol approved by the Department of Agriculture & Cooperation, Ministry of Agriculture. It will
be followed by periodic surveillance of accredited nursery. It may be implemented by NHB directly
or through nominated accrediting agency.

viii) Proposals regarding nominations of accrediting agency and financial assistance shall be
decided by the Board.

Average expenditure on accreditation & rating of horticulture nursery would be Rs 1.00 lakh per
nursery.

Guidelines along with Technical Manuals of NHM and ICAR for establishment of Nursery have
been notified and published by NHB.

(XII) Mother Plant Nurseries for high pedigree planting material for fruit crops

Implementation and pattern of assistance

This activity is for Setting up Mother Blocks and Bank for Root Stock and Scion / bud stick of
higher pedigree for making the same available to commercial nurseries for raising mother trees on
their commercial nursery and also for multiplication and sale to farmers, in which following
components are for implementation:

i) Mother block of scion and root stock, infrastructure for production of disease free planting
materials such as poly house / green house, net house, mist chamber, hot beds, sterilization of
media and TC lab, referral lab, QC lab, weather station;

ii) Water supply, electric supply with generator, ETP, farm equipments/ farm machineries, tools,
portrays, root trainers, container, computer system for data management and analysis etc; as per
need.

iii) Projects under this component shall be appraised by NHB with the help of a committee of
experts and should be linked with future area expansion plan under government schemes.

iv) Crop & variety specific modern mother plant nurseries shall be managed by ICAR
Institutes/NRCs, SAUs or public sector agency.

v) Institution(s) willing to set up mother plant nursery for any crop / crops should apply along with
Detailed Project Report.

vi) Applicant organization will have to bear capital cost on account of land, staff component, water
& electricity consumption and annual maintenance etc. NHB would provide 100 percent cost of
nursery infrastructure, plant health management system, procurement of planting material of
breeder and foundation seed grade and plantation and initial input. To begin with, planting
materials for major crops like citrus, mango, apple, stone fruits, guava, litchi, sapota, aonla,
pomegranate etc. will be given priority. Assistance would be up to Rs 75.00 lakh for one ha. of
effective nursery area.
(XIII) Assistance for common facilities in Horticulture Parks/ Agri Export Zones etc.

Implementation and pattern of assistance

(i) Horticultural parks set up in identified industrial estates or identified cluster of production proposed to be developed as production hub for back end support to marketing and export needs shall be eligible for assistance. Notified Agri-Expo Zones shall also be treated at par with Horticulture Park for the purpose of extending the operation of schemes having component of granting benefits for setting up of common infrastructure/ facilities with regard to production, PHM and Processing.

(ii) NHB will facilitate PSU and Growers Associations or companies engaged in contract farming in establishment of common infrastructure facilities like collection, sorting, grading, primary processing, packaging, storage godowns, cold chain infrastructure, transport, value addition, marketing, quality control labs, logistics, water supply, effluent treatment plant, training / conference facility etc. If a public sector organization is the promoter agency for such Horticulture Park then a society of the stakeholders shall be formed in the beginning itself to take care of day-today management activities of the park in due course.

(iii) NHB will extend one-time financial assistance to the promoter agency up to 50% of the eligible project cost with ceiling of subsidy of Rs. 4.00 crore per Horticulture Park for setting up of common Facilities Centre (CFC) such as mobile pre-coolers, pack house, cold chain infrastructure, storage godowns, quality control labs, logistics, primary processing facilities, water supply, effluent treatment plant, training / committee room etc.

(iv) Projects promoted by growers associations or companies engaged in contract farming must be credit linked wherein credit component is in the form of term loan from Bank / non-banking financial institution / Marketing Board and subsidy will be back-ended. Term loan component should be at least 15% more than admissible percentage of financial assistance in terms of percentage of eligible project cost. For this purpose NHB shall prescribe normative cost of components of Horticulture Park.

(v) The cost of setting up of individual production unit would be borne by the entrepreneurs who will set up projects in the park, for which they shall also be eligible for back ended capital investment subsidy under the commercial horticulture scheme of NHB.

Application Form and Undertaking Format are given in Annexure-III (Pages 88-92 of this booklet)
SCHEME-4
Market Information Service for Horticulture Crops

Objectives

i) To generate information on wholesale prices, arrivals and trends in various markets of the country for important fruits, vegetables & flowers etc and also on retail prices for increased number of selected markets

ii) To analyze the trends of arrivals, prices and other related factors of the selected fruit and vegetables such as stock in storage, crop stand etc and generate Market Intelligence Reports

iii) To establish a nation-wide communication network for speedy collection and dissemination of market information data for its efficient and timely utilization.

iv) To prepare farmers’ advisory and issue the same for the benefit of producer farmers especially by making use of statistics so generated and collected for optimizing returns to the producers

v) To collect and disseminate information on international prices prevailing in potential foreign markets

vi) To collect and compile horticulture database and strengthen existing system of ‘Crop Estimation Survey-Fruits & Vegetables’ (CES-F&V) as far as possible

Implementation

Coverage of markets by NHB shall be increased from present 36 fruits and vegetables markets to 100 markets. This would be done by outsourcing existing marketing/professional agencies/ unemployed Agriculture graduates or recognized/ established brokers in Mandi etc. at a fixed monthly remuneration (including transport) per month as decided by the Board plus actual expenses on transmission of information to NHB (fax, internet and telephone). The NHB would identify these markets in consultation with concerned State Govts. An exclusive cell shall be set up at NHB, Gurgaon for on-line receipt, data entry, analysis, dissemination and web-site management. The work relating to this proposed MIS cell shall also be undertaken by outsourcing services of selected professional agency.
SCHEME-5
Horticulture Promotion Service

Under this component, specialized studies and surveys shall be carried and study / survey reports shall be brought out for use by targeted beneficiaries. In addition, technical laboratories shall be set up or cause to be set up and also provide technical services including advisory and consultancy services. This shall be done by NHB with or without services of outsourced experts.

Components
i) Review the present situation of horticulture development in particular area/ State
ii) Identify constraints in horticulture development and suggest remedial measures
iii) Develop short term and long term strategies for systematic development of horticulture,
v) Develop primary/secondary data of various aspects on horticulture,
v) Provide consultancy services, expert services & establishing labs etc. in pursuance thereof,
vi) Conduct technical scrutiny and certification of cold chain infrastructure as per implementation protocol for Technical Standards for cold storages etc.

vii) Preparing reports relating to export competitiveness in the area of fresh horticulture produce,
viii) Any other component of expert services provided by NHB addressing to identified needs of the sector

Pattern of Assistance for above components
100% cost of the study shall be borne by the Board.

Nodal Organizations
i) NHB itself
ii) State Governments/UT’s and organizations under it,
iii) Central Government Organizations/ agencies
iv) Other organizations such as Quality Council of India / NHRDF etc.

Aspects of Studies/Surveys
i) Techno Economic Feasibility Studies for development of horticulture in States/UT’s/Belts/ Zones etc.
ii) Market Studies /special problems/Area/Commodity based study/ other aspects – Terms of Reference will vary on case to case basis
iii) Expert Services for project identification, formulation, implementation, monitoring & evaluation etc.

iv) Multi disciplinary and specific studies by NHB such as Performance Rating of infrastructure components, tools, equipments, machineries for use in horticulture sector, Firming up of PHM, storage and specialized handling related protocols

v) Issues relating to protocols for Good Agricultural Practices, quality standards for fresh horticulture produce such as under CODEX and EC standards;

vi) Export competitiveness in respect of fresh horticulture produce,

vii) E-solutions for business process of NHB office

viii) To facilitate the consultancy services relating to production, plant protection, PHM, packaging, storage, marketing and exports,

ix) All above aspects are illustrative and not exhaustive

Criteria for empanelment of consultants / consultancy firms

i) The consultancy firms should be registered and it should be multi-disciplinary having minimum experience of 3-5 years. Individual consultants or subject matter specialist of horticulture/agriculture experts, economist/management/legal/personnel/financial/marketing/information-technology experts etc, can be engaged for specific activities, where the expertise of an individual will meet requirement.

ii) The consultants must have expertise and experience in the field of horticulture, financial management, project formulation, project evaluation, monitoring etc.

iii) Consultants should have capability, as evident from their past experience in similar work in relevant field such as agriculture/horticulture/post-harvest management/refrigeration, e-governance, marketing and exports.

iv) The consultants must have required infrastructure for taking up consultancy as per job requirements

v) Preference would be given to such consultancy firms, who have experience in conducting similar studies for similar conditions

vi) The selection of experts for specific/multi disciplinary studies shall be finalized by the committee of NHB keeping in mind their known professionalism in the field.

Procedure for engaging the services of consultants / consultancy firms

i) Study would be conducted and consultancy services rendered through empanelled consultants. The panel of Consultancy firms/consultants would be updated periodically, after every three years.
ii) A public notice will be issued calling offers from consultant / consultancy firms for empanelment. A panel of consultancy firms / consultants would be finalized by Empowered Committee of the Board.

**Procedure for award of studies/surveys or consultancy assignment to a consultant / Firm in panel so prepared by NHB**

i. Consultants / Firm would send their detailed offer taking into consideration scope of work/term of reference within prescribed period.

ii. Consultants would be required to give offer in-respect of technical & financial aspects.

iii. Offers would be scrutinized by the Board for consideration of Empowered committee.

iv. Consultants would present their case in person before the Empowered Committee on the date & time to be decided by the Board.

v. Period of study would be decided by the Empowered Committee on case to case basis.

vi. The study would be awarded by the Board on the recommendation of the Empowered Committee.

**Mode of Payment**

i) 25% on award of work

ii) 50% on submission of Draft Report.

iii) 25% after final report and its acceptance by Board/ Concerned State Govt./ Organization.

**Note:** - The consultant / consultancy firm shall be required to furnish an indemnity bond and personal guarantee before the release of advance payments. For any delay in submission of Draft Report, penalty @ 1 % of total fee may be levied on the consultants for every delay of one month or part thereof.

**Submission of Draft Study / Survey Report**

i) Draft report would be submitted by the consultants within the prescribed time.

ii) Consultants would also present the study undertaken through slides etc. before the NHB & concerned sponsoring organization.

iii) Comments of NHB/sponsoring organization would be included in the study report.

iv) Consultants would coordinate for organizing the presentation of the report.

**Submission of Final Report**

Consultants would be required to submit requisite number of copies of Draft Report and Final Report duly bound along with soft copy.
NHB can undertake consultancy services including setting up of specialized laboratory with the help of empanelled consultants/ consultancy firms.

**National Cold Chain Development Centre**

i) A National Cold Chain Development Centre (NCCD) shall be set up by NHB with private sector participation in technology up-gradation, human resource development for meeting the requirements of post harvest management of horticulture crops and management of cold chain infrastructure and carrying out applied research & development related to post harvest management and storage of horticulture produce.

ii) NCCD is envisaged to operate in Public-Private Partnership Mode (PPP mode) with stakeholders’ participation. Organisation structure of National Cold Chain Development Centre and its bye-laws shall be as approved by the Department of Agriculture & Cooperation, Ministry of Agriculture, Govt. of India.

iii) One time grant of Rs. 25 crore, including cost of construction and furnishing of HRD Centre at Nangaloi is earmarked for establishment of the National Cold Chain Development Centre during XI plan. There shall be No cost on NHB on account of operation and maintenance of the NCCD. NCCD shall generate its own resources from services rendered.

iv) NCCD will be responsible for bench marking of technical standards of cold chain and PHM infrastructures, carrying out technical scrutiny and appraisal of cold storage and PHM projects, certification of cold storage and PHM projects as per approved Implementation Protocols for Technical Standards, carrying out Human Resource Development Programmes for meeting needs of skilled manpower for effective management of integrated cold chain infrastructure, promote private- investment in integrated cold chain infrastructure including development of National Green Grid and undertaking applied R &D relating to critical storage conditions for fresh horticulture produce, energy efficiency and performance rating of refrigeration equipments etc.