Directory of Schemes in Department of Agriculture, Punjab

I. Centrally Sponsored Schemes

S. No	Scheme/ Component	Brief description/ Activities covered	Subsidy/ Assistance
1.	**National Food Security Mission (NFSM) (60:40)**		
	High Yielding Varieties of Seeds, Technology Dissemination through Cluster Demonstrations, Cropping System Based Demonstrations, Latest Farm Machinery, Assistance for Custom Hiring and Training of Farmers etc.		
A.	**Wheat**	12 Districts i.eAmritsar, Bhatinda, Ferozepur, Hoshiarpur, Gurdaspur, Fazilka, Jalandhar, Kapurthala, Pathankot, Ropar, S.A.S Nagar and Tarn Taran	
i.	**Demonstrations on Improved Technologies:**		
a.	Cluster Demonstrations (of 100 ha each)		Rs 7500/-per Ha
b.	Cropping System based demonstrations (100 ha each) i. Wheat-Maize ii. Wheat-Rice (SRI/DSR/Line Transplanting)		Rs 12500/-per Ha Rs 12500/-per Ha
ii.	**Distribution of HYVs seeds**		Rs 1000/-per Qtl
iii.	**Need Based Plant/Soil Protection Management:**		
a.	**Soil Management** (i) Micronutrients		Rs 500/ha or 50% of the cost, whichever less
b.	**Plant Management** (i) Plant Protection Chemicals & bio-agents		Rs 500/ha or 50% of the cost, whichever less

iv.	**Resource Conservation Machineries/ Energy Management:**		
a.	Manual Sprayers		Rs 600/unit or 50% of cost whichever less
b.	Power Knap Sack Sprayers		Rs 3000/unit or 50% of cost whichever less
c.	Zero Till Seed Drills		Rs 15000/unit or 50% of cost whichever less
d.	Multi Crop Planters		Rs 15000/unit or 50% of cost whichever less
e.	Seed Drills		Rs 15000/Unit or 50% of cost whichever less
f.	Rotavators/Turbo Seeder		Rs 35000/unit or 50% of cost whichever less
g.	Chiseller		Rs 8000/unit or 50% of cost whichever less
h.	Laser Land Levelers		Rs 150000/unit or 50% of cost whichever less
i.	Multi Crop Threshers		Rs 40000/unit or 50% of cost whichever less
iv.	**Cropping System based trainings**	Four sessions i.e one before Kharif, One each during kharif and rabi crops and one after rabi harvest	Rs 3500/-per session /Rs 14000/- per Training
v.	**Local Initiative**		
a.	Reversible Hydrolic MB Plough (As per SMAM* norm) (*Sub Mission on Agricultural Mechanization)		40% of cost or Rs. 35,000/-
b.	Mulcher (As per SMAM norm)		40% of cost or Rs. 35,000/-
B.	**Pulses**	all districts	
i.	**Demonstrations on Improved Technologies:**		
a.	Cluster Demonstrations (of100 ha each **i. Arhar** **ii. KharifMoong** iii. **Summer Moong**		Rs. 7500/· per ha Rs. 7500/· per ha Rs. 7500/· per ha
b.	Cropping System Based Demonstrations **i. Wheat-Summer Moong**		Rs.12500/- per ha

ii.	**Assistance for Distribution & Production of Seeds**		
a.	Distribution of Seeds		Rs. 2500/- Qtl or 50% of cost whichever less
b.	Production of Seeds **i. Moong**		Rs. 2500/-Qtl or 50% of cost whichever less
iii.	**Integrated Pest Management (IPM):**		
	(a) Distribution of PP Chemicals		Rs. 500/ha or 50% of cost whichever less
	(b) Weedicides		Rs. 500/ha or 50% of cost whichever less
iv.	**Resource Conservation Machineries/Energy Management:**		
a.	Power Knap Sack Sprayers		Rs 3000/unit or 50% of cost whichever less
b.	Rotavators		Rs 35000/unit or 50% of cost whichever less
v.	**Cropping System based trainings**	Four sessions i.e one before Kharif, One each during kharif and Rabi crops and one after Rabi harvest	Rs 3500/-per session /Rs 14000/- per Training
vi.	**Other Initiative**		
	Assistance for Custom Hiring Centers		
a.	Mechanical line sowing of pulses		Rs1500/- ha
b.	Mechanical Threshing of Pulses		Rs1500/- ha
C.	**Coarse Cereals(MAIZE)**	(3 districts: Hoshiarpur, Roopnagar, SBS Nagar)	
i.	**All Demonstrations on Improved Package**		
	(i) **Maiz**e		Rs. 5000/-per ha
ii.	**Distribution of Certified Seeds:**		
	(b) Hybrid Seeds		
	(i**) Maize**		Rs. 5000/-per qtl.

D.	**Commercial Crops (NFSM-CC)**		
a)	**COTTON**		
i.	Front Line Demonstration on Integrated Crop Management		Rs7000/-ha (Rs 6000/- for inputs &Rs 1000/- for Contingency)
ii.	Front Line Demonstration on Desi& ELS cotton / ELS cotton seed production		Rs8000/-ha (Rs 7000/- for inputs &Rs 1000/- for Contingency)
iii.	Trails on High density Planning System		Rs9000/-ha (Rs 8000/- for inputs &Rs 1000/- for Contingency)
b)	**SUGARCANE**		
i.	Demonstration on Inter-cropping and single bud chip technology with sugarcane		Rs8000/-ha (Rs 7000/- for inputs &Rs 1000/- for Contingency)

2.	**Sub Mission on Agricultural Extension –** Support to State Extension Programmes for Extension Reforms: Agricultural Technology Management Agency **(ATMA)**		
i.	Training of Farmers		
	a. Inter-state (outside state)	Duration of training shall be 5-7 days	Training expenses will be borne by the department
	b. Within the state	Duration of training shall be 3-5 days	
	c. Within the district	Duration of training shall be 1-2 days	
ii.	Organizing demonstrations (for agriculture & allied sectors)		
iii.	Exposure visit of farmers		
	a. Inter-state (outside the state)	Up to 5 farmers per Block per batch of an Exposure Visit. Maximum period of an exposure visit not to exceed 7 days (excluding journey time).(The cost should be limited to actual traveling	Expenses for exposure visit will be borne by the department

		expenditure and boarding/ lodging cost.)	
	b. Within the state	Same as given above, exceptthat the maximum period of an exposure visit not to exceed 5 days (excluding journey time).	
iv.	c. Within the district	Same as given above, except that the maximum period of an exposure visit not to exceed 3 days (excluding journey time).	
v.	Mobilization of farmer groups of different types including Farmer Interest Groups, Women Groups, Farmer Organizations, Commodity Organizations, and Farmer Cooperatives etc.		
	a. Their capacity building, skill development and support services	Upto 20 groups per block	Rs. 5000/- per group
	Seed money /revolving fund	Only to viable groups on competitive basis	Rs. 10,000/- per group
	c. Food Security Groups	2 FSGs/Block is mandatory. These will be all women farmers' groups and Seed Money will be given for Household food security garden.	Rs. 10,000/- per group
vi.	Rewards and incentives –Farmer Groups	Best organized group representing different enterprises (5 groups)	Rs. 20,000/- per group
vii.	Farmer Awards	Best farmers representing different enterprises at Block Level	Rs. 10,000/- per farmer
iii.	Farm Information dissemination		
	a. District level exhibitions, kisanmelas, fruits/ vegetable shows.		
	b. Information dissemination through printed leaflets		

	etcand local advertisements.		
	c. low cost publication		
ix.	Agricultural Technology Refinement, Validation and Adoption		
	a. Farmer Scientist Interactions at district level 25 farmers for 2 days.	2 interactions per district	
	b. Designate expert support from KVK/SAU at District Level	KVKs/SAUs/ Agri.Research Institutes have to designate expert in charge of one district. He would provide instant guidance to dist. Functionaries/BTMs/SMSs \within his respective district. The support is to be provided as an incentive for sharing expertise in their respective fields in addition to their official duties.	
	c. Joint visits by Scientists & Extension Workers		
	d. Organization of Kisan Gosthis to strengthen Research –Extension – Farmer linkages (1 per block in each of the 2 seasons).		
x.	Farm School	Farm Schools will be preferably organized in a cluster approach so as to have a demonstrable impact.	Rs.29,414/Farm School + Rs.4000/ groupof Farm Schools
xi.	Farmer Friend	One FF/ 2 Village	Rs. 6,000/- per farmer friend per year

3.	**Sub Mission on Agriculture Mechanization (SMAM)**		
	Procurement subsidy for		Rs 4.00 lac

	establishment of custom hiring center upto 10 lac		
	Procurement subsidy for establishment of custom hiring center upto 25 lac		Rs 10.00 lac
	Procurement subsidy for establishment of custom hiring center upto 40 lac		Rs 16.00 lac
	Procurement subsidy for establishment of custom hiring center upto 60 lac		Rs 24.00 lac
	Procurement subsidy for establishment of custom hiring center upto 100 lac		Rs 40.00 lac

4.	**ParamparagatKrishiVikasYojna (60:40)**		
	Assistance totheFarmersCollectiveof50clusterstowards marketinitiatives		50% Financial assistance will bepermissiblefor a. Grading and sorting b. Packing, labeling & hologram printing c. Hiring charges for go down Thecharges willbefixedbytheSLEC(State Level Executive Committee) fortheaboveactivities
	AssistancetotheFarmersCollectiveof50clusterstowardstransportationoftheirproducefromfarmfieldstogodown/markets		50% Financial assistance will be permissibleforcollectionandtransportationoforganicproducetomarketplaces, forpurchasingfourwheel transportvehicles.
	AssistancetoFarmersCollectiveof 50 clusters towards market facilitation		50% Financial assistance will be permissible towards i) Hiring ofmarket placeforamaximumperiodofoneyear. ii) Buyersellermeets andnegotiations iii) Productdevelopment

	AssistancetoFarmersCollectiveof 50clusterstowardsparticipationin Organicfair/Seminars/workshops/ Eventstoincreasethemarketabilityofproducts.		50% financial assistance ispermissible towards the participation in seminars/Workshops/otherevents.

5.	**Compensation for Stubble Management**		
	District Covered	**Funding pattern**	**Objective / Brief of the scheme**
	All districts of the state	The funding pattern of the scheme is 100% by State.	This is a New State Plan Scheme introduced in FY 2019-20. In compliance order of Hon'ble Supreme Court of India dated 6.11.19 interalia the State Govt. has been directed to pay Rs 100/- per quintal of Non Basmati Paddy as compensation to Small & Marginal Farmers of the State who have not set paddy crop residue on fire in the open fields besides managed this residue by way of in-situ / ex-situ management.

6.	**Intervention in Agriculture for Resource Conservation & Crop Diversification.**		
	District Covered	**Funding pattern**	**Objective / Brief of the scheme**
	All districts of the state	The funding pattern of the scheme is 100% by State	Conservation of Natural Resources is the main stay of Agriculture & Farmers Welfare, Punjab. There is astrong need to demonstrate latest farm technologies and to create favorable conditions for Resource Conservation, Crop Diversification and improving income of farmers. The objective is to be achieved by way of Demonstration of technologies, agronomic practices and marketing interventions to support diversified crops and improving farming practices. The Department of Agriculture & Farmers Welfare, Punjab will plan, execute, monitor and evaluate interventions related to various crops across different parts of the State in sizeable and exhibit-able areas. The interventions shall be showcased to large number of farmers for adoption in days to come to achieve the objective. To implement this scheme it is proposed to hire persons on Contractual basis, Hiring of Vehicles for monitoring and implementation, Media Publicity – advertisement and publication of material for farmer awareness, Capacity building of officers, training of farmers, exposure visits. Besides this Farmer Camps will be organized, demonstration plots of various crops will be organized in which farmers will be provided with the inputs to shift from paddy to alternative crops. In addition to this machinery and equipment will be purchased for on farm demonstration of latest technologies.

7.	**National Mission for Sustainable Agriculture (Soil Health Management)**		
District Covered		**Funding pattern**	**Objective / Brief of the scheme**
All districts of the	National Mission for Sustainable Agriculture (NFSM) has been formulated for enhancing agricultural productivity especially in rainfed areas		Soil Health Management (SHM)aims at promoting location as well as crop specific sustainable soil health management including residue management, organic

state	focusing on integrated farming, water use efficiency, soil health management and synergizing resource conservation		farming practices by way of creating and linking soil fertility maps with macro - micro nutrient management, appropriate land use based on land capability, judicious application of fertilizers and minimizing the soil erosion/degradation. Assistance will be provided for various improved package of practices based on land use and soil characteristics, generated through geographical information system (GIS) based thematic maps and database on land and soil characteristics through extensive field level scientific surveys. Besides, this component will also provide support to reclamation of problem soils (acid/alkaline/saline). This component will be implemented by State Govt., National Centre of Organic Farming (NCOF), Central Fertilizer Quality Control & Training Institute (CFQC&TI) and Soil and Land Use Survey of India (SLUSI). **Main Objectives-:** **1.**To make agriculture more productive, sustainable, remunerative and climate resilient by promoting location specific Integrated/Composite Farming Systems. **2.**To conserve natural resources through appropriate soil and moisture conservation measures. **3.**To adopt comprehensive soil health management practices based on soil fertility maps, soil test based application of macro & micro nutrients, judicious use of fertilizers etc. **4.**To optimize utilization of water resources through efficient water management to expand coverage for achieving 'more crop per drop'. **5.**To develop capacity of farmers & stakeholders, in conjunction with other on-going Missions e.g. National Mission on Agriculture Extension & Technology,

			National Food Security Mission,National Initiative for Climate Resilient Agriculture (NICRA) etc., in the domain of climate change adaptation and mitigation measures. **6.**To pilot models in select blocks for improving productivity of rainfed farming by mainstreaming rainfed technologies refined through NICRA and by leveraging resources from other schemes/Missions like Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), Integrated Watershed Management Programme (IWMP), RKVY etc. **7.**To establish an effective inter and intra Departmental/Ministerial co-ordination for accomplishing key deliverables of National Mission for Sustainable Agriculture under the aegis of NAPCC.

Directory of Schemes in Department of Horticulture, Punjab

I. Mission for Integrated Development of Horticulture During XII Plan

INTRODUCTION

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, aromatic plants etc. At present this scheme is implemented in the state with funding pattern of 60:40 i.e. Government of India (GOI) is contributing 60% and 40% is state share.

Objectives of the Mission are:

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;

a) Encourage aggregation of farmers into farmer groups like FIGs/FPOs and FPCs to bring economy of scale and scope.
b) Enhance horticulture production, augment farmers, income and strengthen nutritional security;
c) Improve productivity by way of quality germplasm, planting material and water use efficiency through Micro Irrigation.
d) Support skill development and create employment generation opportunities for rural youth in horticulture and post-harvest management, especially in the cold chain sector.

PROVISIONS FOR FARMERS

I. PRODUCTION OF PLANTING MATERIAL

1. Nurseries: 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 hi-tech nurseries and small nurseries. Hi-tech

nurseries will have an area between 1 to 4 ha with a capacity to produce 50,000 plants per ha of mandated perennial fruit crops / tree spices / aromatic trees / plantation crops per year. The plants produced will be duly certified for their quality. The support includes:

(i) Proper fencing.

(ii) Scion / Mother block of improved varieties.

(iii) Root stock block (Rhizome bank in case of bamboo).

(iv) Net house

(v) Irrigation facilities

(vi) Hi-tech greenhouse having insect proof netting on sides and fogging and misting systems.

(vii) Hardening/maintenance in insect proof net house with light screening properties and sprinkler irrigation system.

(viii) Pump house to provide sufficient irrigation to the plants and water storage tank to meet at least 2 days requirement.

(ix) Soil solarization - steam sterilization system with boilers.

Provision:

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Small Nursery (1 ha)	Rs. 15.00 lakh/ha	Credit linked back-ended subsidy of cost, subject to a maximum of Rs. 7.50 lakh/unit, as project based activity. Each nursery will produce a minimum of 25,000 numbers of mandated perennial vegetatively propagated fruit plants/tree spices/plantation crops per year, aromatic plants, duly certified for its quality.
ii.	Upgrading nursery infrastructure to meet accreditation norms	Up to Rs. 10.00 lakh/ nursery of 4 ha	50% of cost subject to a maximum of Rs. 5.00 lakh/nursery. 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.

2. **Tissue Culture Units:** 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 of the mandated crop for which protocols are available for commercial use, except Date palm. 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). 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

Provision:

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Setting up of new TC Units.	Rs. 250.00 lakh/unit	Credit linked back ended subsidy @ 40% of cost. Each TC unit will produce a minimum of 25 lakh plants/year of mandated crops, duly hardened, for which protocols are available for commercial use.

3. **Vegetable Seed Production**

Production of '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 greenhouse 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 infrastructure for media sterilization i.e. steam boiler, holding bins, etc will also be provided. Total cost will not exceed Rs. 104.00 lakh for a unit with one ha or Rs. 1040 per sq. m. 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.

Provision:

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Seed production for vegetables and spices		
	a) Open pollinated crops	Rs. 35,000/ha	100% of cost limited to 5 ha. (Output target of seed for each crop will be fixed by the State govt./authorities)
	b) Hybrid seeds	Rs. 1.50 lakh/ha	100% of cost limited to 5 ha. (Output target of seed for each crop will be fixed by the state govt. /authorities for each beneficiary, before releasing funds.)
ii.	Seed infrastructure (for handling, processing, packing, storage etc. of seeds meant for use as seed material for cultivation of horticulture crops)	Rs. 200.00 lakh	Credit linked back subsidy @ 50% of cost of project.
iii.	Import of planting material	Rs. 100.00 lakh	100% of cost for State Govt. / PSUs, as project based activity.

II. **ESTABLISHMENT OF NEW GARDENS AREA EXPENSION**(Area expansion - for a maximum area of 4 ha per beneficiary): The Mission envisages coverage of area under improved varieties of horticultural crops. Norms for area expansion of **fruits, vegetables, plantation crops** and other crops including **flowers, spices** are also given in this mission.

III. Highdensityplanting(mango,guava,litchi,pomegranate,apple,citrusetc).

1. Fruits:

S. No.	Item	Cost Norms*	Pattern of Assistance#
Cost intensive fruit crops			
i.	Fruit crops like Grape, Kiwi, Passion fruit etc.		
a.	Integrated package with drip irrigation and trellis.	Rs. 1.50 lakh/ha.	Maximum of Rs. 0.60 lakh/- per ha. (40% of cost) for meeting the expenditure on planting material and cost of material for drip irrigation, trellies and INM/IPM, in 3 installments of 60:20:20 subject to survival rate of 75% in 2nd year and 90% in 3rd year).
b.	Without integration	Rs. 1.00 lakh/ha	Maximum of Rs. 0.40 lakh/ha (40% of cost) for meeting the expenditure on planting material and cost of INM/IPM in three installments of 60:20:20 subject to survival rate of 75% in 2nd year and 90% in 3rd year.
	Fruit crops other than cost intensive		
ii.	Fruit crops other than cost intensive crops using normal spacing		
a.	Integrated package with drip irrigation	Rs. 1.00 lakh/ha	Maximum of Rs. 0.40 lakh/ ha. (40% of cost) for meeting the expenditure on planting material, cost of drip system, INM/IPM, canopy management etc in 3 installments of 60:20:20 subject to survival rate of 75% in 2nd year & 90% in 3rd year for perennial crops and for non perennial crops in 2 installments of 75:25.

b.	Without Integration	Rs. 60,000/ha	Maximum of Rs. 0.30 lakh/ha (50 % of cost) for meeting the expenditure on planting material and cost of INM/IPM in 3 installments, in all States.

2. Vegetable (For maximum area of 2 ha per beneficiary):

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Hybrid	Rs.50,000/ ha	Assistance will be given @ 40% of cost

3. Mushroom Production

In case of mushroom, assistance will be provided for setting up of individual mushroom production, spawn production and compost making units.

Provision:

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Production unit	20 lakh /unit	40% of cost for meeting the expenditure on infrastructure, as credit linked back ended subsidy.
ii.	Spawn making unit	Rs. 15 lakh/unit	40% of cost for meeting the expenditure on infrastructure, as credit linked back ended subsidy.
iii.	Compost making unit	Rs. 20.00 lakh/unit	40% of cost for meeting the expenditure on infrastructure, as credit linked back ended subsidy.

4. Flowers (For a maximum of 2 ha per beneficiary):

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Cut flowers	Rs. 1.00 lakh/ha	40 % of the cost for Small & Marginal farmers and 25% of cost to other category farmers
ii.	Bulbulous flowers	Rs. 1.50 lakh/ha	40 % of the cost for Small & Marginal farmers and 25% of cost to other category farmers
iii.	Loose Flowers	Rs. 40,000/ha	40 % of the cost Small & Marginal farmers and 25% of cost to other category farmers

5. Spices (For maximum area of 4 ha per beneficiary):

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Seed spice and Rhizomatic spices	Rs.30,000/ha	Maximum of Rs. 12,000/- per ha. (40% of cost) for meeting the expenditure on planting material and cost of material for INM/ IPM etc).
ii.	Perennial spices (black pepper, cinnamon, clove and nutmeg)	Rs. 50,000/ha	Maximum of Rs. 20,000/- per ha (@40% of cost) for meeting the expenditure on planting material and cost of material for INM/IPM etc. For (i) and (ii) above, in the case of NE and Himalayan States, TSP areas, Andaman and Lakshadweep Islands, assistance will be @50% of cost.

IV. REJUVENATION/REPLACEMENT OF SENILE PLANTATION, CANOPY MANGEMENT

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

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Rejuvenation / replacement of senile plantation, canopy management	Rs. 40,000/ha	50% of the total cost subject to a maximum of Rs. 20,000/ha limited to two ha per beneficiary.

V. CREATION OF WATER SOURCES

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. This will be in conjunction with MNREGS and wherever possible adequate convergence has to be ensured. These water bodies may be linked with Micro Irrigation facility for judicious use of water. Assistance under NHM will be limited to cost of plastic / RCC lining. Lining material should conform to BIS standards. Assistance would also be provided for creating water source through construction of farm ponds/tube wells/ dug wells for individuals.

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Community tanks/on farm ponds/on farm water reservoirs with use of plastic/ RCC lining	Rs. 20.00 lakh/ unit	100% of cost to irrigate 10 ha of command area.

ii.	Water harvesting system for individuals- for storage of water in20mx20mx3m ponds/tube wells/dug wells @ Rs.125/- cum	Rs. 1.50 lakh/unit in plain areas and Rs. 1.80 lakh/unit in hilly areas	50% of cost. Maintenance will be ensured by the beneficiary

VI. PROTECTED CULTIVATION

Activities like construction of green houses, shade net house, plastic mulching, and plastic tunnels, anti bird/ hail nets would be promoted under the Mission. Provision has been made for selecting a variety of construction material for green houses and shade net houses. Preference will be given to using locally available material to minimize cost of construction of such structures. However, for availing/subsidy assistance, all material/technologies should conform to BIS standard

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Green House Structure		
a)	Fan & Pad system	Rs. 1650/Sq.m(up to 500 Sq.m)	50% of cost for a maximum area of 4000 sq.m per beneficiary.
		Rs. 1465/Sq. m(>500 Sq.m up to 1008 Sqm)	
		Rs. 1420/Sq. m(>1008 Sq. m up to 2080 Sq.m)	
		Rs. 1400/Sq. m (>2080 Sq. m upto 4000 Sq.m)	
b)	Naturally ventilated system		
	i)Tubular structure	Rs.1060/Sq.m	50% of cost limited 4000 sq. m. per beneficiary.
	Hilly Areas	Rs 1290/Sq.m	
	i) Tubular structure	Rs. 935/Sq.m (>500Sq. m up to 1008Sq. m)	
		Rs.890/Sq.m (>1008 Sqm up to 2080 Sq. m)	
		Rs.844/Sq.m (>2080 Sq. m up to 4000 Sq. m)	

	ii)Wooden structure	Rs. 540/Sq.m Rs. 621/Sq.m for hilly area.	50% of the cost limited to 20 units per beneficiary (each unit not to exceed 200 sq.m).
	iii)Bamboo structure	Rs. 450/Sq. m Rs. 518/Sq. m for hilly area.	50% of the cost limited to 20 units per beneficiary (each unit should not exceed 200 sq.m).
ii.	Shade Net House		
a)	Tubular structure	Rs. 710/Sqm Rs. 816/Sqm for hilly area	50% of cost limited to 4000 sq.m. per beneficiary.
b)	Wooden structure	Rs. 492/Sqm Rs. 566/Sqm for hilly area	50% of cost limited to 20 units per beneficiary (each unit not to exceed 200 sq.m).
c)	Bamboo structure	Rs.360/Sqm Rs. 414/Sqm for hilly area	50% of cost limited to 20 units per beneficiary (each unit not to exceed 200 sq.m).
iii.	Plastic Tunnels	Rs. 60/Sqm Rs. 75/Sqm for hilly area	50% of cost limited 1000 sq.m. per beneficiary.
iv.	Walk in tunnels	Rs. 600/ sqm	50% of the cost limited to 5 units per beneficiary (each unit not to exceed 800 Sq. m).
v.	Anti Bird/Anti Hail	Rs.35/Sqm	50% of cost limited to 5000 sq.m.

	Nets		perbeneficiary.
vi.	Cost of planting material & cultivation of high value vegetables grown in poly house	Rs.140/Sq. m	50% of cost limited to 4000 sq.m. per beneficiary.
vii.	Cost of planting material & cultivation of Orchid &Anthurium under poly house/ shade net house.	Rs. 700/Sqm	50% of cost limited to 4000 sq.m. per beneficiary.
viii.	Cost of planting material & cultivation of Carnation & Gerbera under poly house/ shade net house.	Rs. 610/Sqm	50% of cost limited to 4000 sq.m. per beneficiary.
ix.	Cost of planting material & cultivation of Rose and lilum under poly house/ shade net house	Rs. 426/Sqm	50% of cost limited to 4000 sq.m. per beneficiary

x.	Plastic Mulching	Rs. 32,000/ha	50% of the total cost limited to 2 ha per beneficiary.
		Rs. 36800/ha for hilly area	

VII. Promotion of Integrated Nutrient Management(INM) Integrated Pest Management (IPM)

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Promotion of IPM/INM	Rs. 4000/ha	30% of cost subject to a maximum of Rs 1200/ha limited to 4.00 ha/ beneficiary.
ii.	Disease forecasting unit (PSUs)	Rs. 6.00 lakh/unit	100 % of costs.
iii.	Bio control lab	Rs. 90.00 lakh/unit	100% to Public sector and 50% to private sector.
iv.	Plant Health Clinics	Rs. 25.00 lakhs/unit	100% to Public sector and 50% to private sector.
v.	Leaf /Tissue analysis labs	Rs. 25.00 lakh/unit	100% to Public sector and 50% to private sector.

VIII. ADOPTION ORGANIC FARMING

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Vermi compost Units/ organic input production	Rs.100,000/ unit for permanent structure and Rs. 16,000/unit for HDPE Vermibed	50% of cost conforming to the size of the unit of 30'x8'x2.5' dimension of permanent structure to be administered on pro-rata basis. For HDPE Vermibed, 50% of cost conforming to the size of 96 cft (12'x4'x2') and IS 15907:2010 to be administered on pro-rata basis.
ii)	Vermibeds		

iii	CertificationforGoodAgricultural Practices(GAP),Includinginfrastructure	Rs.10,000/ha	50%ofthecostformaximumof4ha/beneficiary.

IX. CERTIFICATION FOR GOOD AGRICULTURAL PRACTICES (GAP), including infrastructure

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 APEDA.

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Certification for GAP, including infrastructure	Rs. 10,000/ ha	50% of the cost for maximum of 4ha/beneficiary.

X. POLLINATION SUPPORT THROUGH BEE-KEEPING

S. No.	Item	Cost Norms*	Pattern of Assistance
i.	Production of nucleus stock (Public sector)	Rs. 20.00 lakh	100% of the cost.
i.	Production of bee colonies by bee breeder	Rs. 10.00 lakh	40% of cost for producing min. of 2000 colonies / year
ii.	Honey bee colony	Rs.2000/colony of 8 frames	40% of cost limited to 50 colonies / beneficiary.
iii.	Bee Hives	Rs 2000/ per hive.	40% of cost limited to 50 colonies / beneficiary.
iv.	Equipment including honey extractor (4 frames) food grade container (30 kg), net, including complete set of Bee	Rs. 20,000/set	40% of the cost limited to one set per beneficiary.

	keeping equipment.		

XI. HORTICULTURE MECHANIZATION

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. Assistance for horticulture mechanization will also be available to such grower associations, farmer groups, Self Help Groups, 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.

S. No.	**Item**	**Cost Norms***	**Pattern of Assistance#**
i.	Tractor (upto 20 PTO HP)	3.00 lakh/unit	25% of cost, subject to a maximum of Rs. 0.75 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal famers, women farmers, then 35% of cost, subject to a maximum of Rs. 1.00 lakh per unit.
ii.	**Power Tiller**		
a)	Power tiller (below 8 BHP)	1.00 lakh per 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 subject of a maximum of Rs. 0.50 lakh/unit
b)	Power tiller (8 BHP & above)	1.50 lakh per unit	Subject to a maximum of Rs.0.60 lakh/unit for general category farmers and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 0.75 lakh/unit.

iii.	**Tractor/Power tiller (below 20 BHP) driven equipments**		
a)	Land Development, tillage and seed bed preparation equipments	0.30 lakh per unit	Subject to a maximum of Rs.0.12 lakh/unit for general category farmers and in the case if SC, ST, Small & Marginal farmers, and women farmers subject of a maximum of Rs. 0.15 lakh /unit.
b)	Sowing, planting reaping and digging equipments	0.30 lakh per unit	Subject to a maximum of Rs.0.12 lakh/unit for general category farmers and in the case if SC, ST, Small & Marginal farmers and women farmers' subject of a maximum of Rs. 0.15 lakh /unit.
c)	Plastic mulch laying machine	0.70 lakh per unit	Subject to a maximum of Rs.0.28 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 0.35 lakh/unit.
iv.	Self-propelled Horticulture Machinery	2.50 lakh per unit	Subject to a maximum of Rs. 1.00 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 1.25 lakh/unit.
v.	**Plant Protection equipments**		
a)	Powered Knapsack sprayer/Power Operated Taiwan sprayer (capacity above12- 16 lts):	Rs.0.062 lakh/unit	Subject to a maximum of Rs.0.03 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 0.038 lakh/unit
b)	Powered Knapsack sprayer/Power Operated Taiwan sprayer (capacity	Rs. 0.20 lakh/unit	Subject to a maximum of Rs.0.08 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 0.10 lakh/unit

	above16/lts		
c)	Tractor mounted /Operated Sprayer (below 20 BHP):		
d)	Tractor mounted / Operated Sprayer (above 35 BHP)/ Electrostatic Sprayer	Rs. 1.26 lakh/unit	40% of cost, subject to a maximum of Rs. 0.50 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal famers, women farmers 50% of cost, subject to a maximum of Rs. 0.63 lakh per unit.
e)	Eco Friendly Light Trap	Rs.0.028 lakh/unit	Subject to a maximum of Rs.0.012 lakh/unit for general category farmers, and in the case if SC, ST, Small & Marginal farmers, women farmers subject of a maximum of Rs. 0.014 lakh/unit
Technology Dissemination through demonstration/ front line demonstration		Rs. 25.00 lakh	75 % of cost in farmers field and 100% of cost in farms belonging to Public Sector, SAUs etc.No change

XII. HUMAN RESOURCE DEVELOPMENT (HRD)

Assistance for organizing training courses for Supervisors, Entrepreneurs, Gardeners and Field Functionaries will be continued during XII Plan.

Training programme for Supervisors, Entrepreneurs will be organized through selected State Agricultural Universities (SAU), ICAR Institutes, Deemed Universities/Private Universities recognized by UGC having faculty in horticulture and Gardeners training through KrishiVigyanKendras and SAUs/ Deemed Universities/Private Universities recognized by UGC recognized by UGC having faculty in horticulture, while departmental staff will be trained under various ongoing training programmes. Training expenses will be met by the Mission.

Minimum qualification for Supervisory & Entrepreneurs training programme would be Higher Secondary and for Gardeners it would be Class-VIII (Middle) standard.

Institutions identified for training should have minimum infrastructure facilities including class rooms, staff, hostel facilities etc.

The courses will be of one year duration for Supervisors and of six months for Gardeners and of three months for Entrepreneurs. In order to attract the candidates and more importantly retain them and prevent their drop out, a monthly stipend will be provided in form of boarding & lodging charges. 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.

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.

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.

S. No.	**Item**	**Cost Norms***	**Pattern of Assistance#**
i.	HRD for Supervisors & Entrepreneurs	Rs. 20.00 lakh/unit	100% of the cost in first year. In subsequent years, cost of infrastructure not to be claimed.
ii.	HRD for Gardeners	Rs. 15.00 lakh/unit	100% of the cost.
iii.	Training of farmers		

	a) Within the State	Rs. 1000/day per farmer including transport	100% of the cost.
	a) Outside the State	Project based as per actual.	100% of the cost.
iv.	Exposure visit of farmers		
	a) Outside the State	Project based as per actual.	100% of the cost.
	b) Outside India	Rs. 4.00 lakh / participant	Project Based. 100% of air/rail travel. Course fee cost to be funded under Mission Management.
v.	Training/Study tour of technical staff/field functionaries		
	a) Within the State	Rs. 300/day per participant plus TA/DA, as admissible	100% of the cost.
	b) Study tour to progressive states/units (group of minimum 5 participants)	Rs. 800/day per participant plus TA/DA, as admissible	100% of air/rail travel and course fee cost to be funded under Mission Management.
	c) Outside India	Rs. 6.00 lakh per participant	100% of the cost.

XIII. INTEGERATED POST HARVEST MANAGEMENT

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) and National Cooperative Development Corporation (NCDC) 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, evaporative/low energy cool chambers, preservation units, onion storage units and zero energy cool chambers. These projects will be entrepreneur driven and provided credit linked back-ended subsidy.

S. No.	Item	Cost Norms*	Pattern of Assistance
i.	Pack house	Rs. 4.00 lakh/unit with size of 9Mx6M	50% of the capital cost.
ii.	Integrated pack house with facilities forconveyer 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
iii.	Pre-cooling unit	Rs. 25.00 lakh / unit with capacity of 6 MT.	Credit linked back-ended subsidy @ 35% of the cost of project
iv.	Cold room (staging)	Rs. 15.00 lakh/ unit of 30 MT capacity	Credit linked back-ended subsidy @ 35% of the cost of project
v.	Cold Storage (Construction, Expansion and Modernization)		
a)	Cold storage units Type 1 - basic mezzanine structure with large chamber (of >250 MT) type with single temperature zone	Rs. 8,000/MT, (max 5,000 MT capacity)	Credit linked back-ended subsidy @ 35% of the cost of project
b)	Cold Storage Unit Type 2 – PEB structure for multiple temperature and product use, more than 6 chambers (of < 250 MT) and basic material handling equipment.	Rs. 10,000/MT, (max 5,000 MT capacity)	Credit linked back-ended subsidy @ 35% of the cost of project
vi.	Technology induction and modernization of cold-chain	Max Rs. 250.00 lakh for modernization of PLC equipment, packaging lines, dock levelers, advanced	Credit linked back-ended subsidy @ 35% of the cost of project

		graders, alternate technologies, stacking systems, Modernization of insulation and refrigeration, etc. Details are in Appendix –II	
vii.	Refrigerated Transport vehicles	Rs. 26.00 lakh for 9 MT (NHM & HMNEH), and prorata basis for lesser capacity, but not below 4 MT.	Credit linked back-ended subsidy @ 35% of the cost of project
viii.	Primary / Mobile/ Minimal processing unit	Rs 25.00 lakh/unit	Credit linked back-ended subsidy @ 40% of the capital cost of project
ix.	Ripening chamber	Rs. 1.00 lakh/MT	Credit linked back-ended subsidy @ 35% of the capital cost of project for a maximum of 300 MT per beneficiary.
x.	Evaporative / low energy cool chamber (8 MT)	Rs. 5.00 lakh/unit	50% of the total cost.
xi.	Preservation unit (low cost)	Rs.2.00 lakh/unit for new unit and Rs.1.00lakh/unit for up-gradation	50% of the total cost.
xii.	Low cost onion storage structure (25 MT)	Rs. 1.75 lakh/per unit	50% of the total cost.
xiii.	Pusa Zero energy cool chamber (100 kg)	Rs. 4000 per unit	50% of the total cost.
xiv.	Integrated Cold Chain supply System	Project Based. Project should comprise of minimum two components listed under C.1 to C.13	Credit linked back-ended subsidy @ 35% of the cost of project

		above, with maximum cost ofRs. 600.00 lakh.	

XIV. ESTABLISHMENT OF MARKETING INFRASTRUCTURE FOR HORTICULTURE PRODUCE

Main objectives of providing assistance under this component are (a) to encourage investments from private and cooperative sectors in the development of marketing infrastructure for horticulture commodities (b) strengthen existing horticulture markets including wholesale and rural markets; (c) focus on promotion of grading, standardization and quality certification of horticulture produce at farm/market level to enable farmers to realize better price; and (d) create general awareness among farmers, consumers, entrepreneurs and market functionaries on market related agricultural practices.

S. No.	Item	Cost Norms*	Pattern of Assistance#
i.	Functional Infrastructure for:		
	i) Collection, sorting/ grading, packing units etc.	Rs.15.00 lakh	Credit linked back-ended subsidy @ 40% of the capital cost of project in general areas and 55 % in case of Hilly & Scheduled areas, per beneficiary.

Directory of Schemes in Department of Soil & Water Conservation

The focus of department is on:

1. To enhance productivity with the limited resources without adversely affecting natural resources in terms of ground water, soil health and environment.
2. Efficient use of irrigation water and on-farm management of water resource
3. Increasing productivity, rainwater harvesting and control of soil erosion in sub-mountainous kandi areas.

I. Centrally Sponsored Schemes

Sr. No	Scheme/ Component	Brief description/ Activities covered	Districts Covered	Subsidy/ Assistance
1.	**PRADHAN MANTRI KRISHI SINCHAYEE YOJANA (PMKSY)**			
E.	Micro Irrigation (Per Drop More Crop) - GoI: State 60:40 sharing pattern	Objective of the scheme is to enhance water use efficiency in the agriculture sector by promoting appropriate technological interventions like drip & sprinkler irrigation technologies and encourage the farmers to use water saving and conservation technologies.	All Districts	@35% (10% additional subsidy for small/marginal farmers)
F.	Reclamation of Special Problem & degraded soil under	Under this scheme, projects for reclamation of special problematic areas and degraded soils are taken up by Government of India under its	Special problem, degraded & ravenous areas in Gurdaspur	

	Technology & Training (TDET) (100% GOI on Govt./)	Technology Development, Extension and Training Programme.	district.	

II. State Sponsored Schemes

Sr. No	Scheme/ Component	Brief description/ Activities covered	Districts Covered	Subsidy/ Assistance
1.	Project for Judicious use of available water & harvesting of rain water for enhancing irrigation potential in Punjab (RIDF-17)	Construction of Rainwater Harvesting and Recharge Structures, Check dams and laying of irrigation network to bring additional area under assured irrigation	12 Districts	90% assistance is approved for Community Underground Pipeline System (UGPS)
			Kandi Area	100% assistance on rainwater Harvesting Structures
2.	Project for Laying of Underground pipeline for Irrigation from Sewerage Treatment Plants of various cities / towns (RIDF-18)	Under the projects are being installed to supply treated water from sewerage treatment plants of various towns/cities upto the farmers field to provide treated sewage water for irrigation	33 cities / towns	
3.	Project for promotion of Micro irrigation (NABARD-	Subsidy is being provided to farmers for installation of Drip, Micro	All districts	80% subsidy on micro-irrigation system and beneficiaries are given

	RIDF-20)	Sprinkler & Sprinkler Irrigation systems		additional subsidy from RIDF-20 over & above the GoI scheme subsidy
4.	Scheme for providing assured irrigation water to the waterlogged areas in south western districts (NABARD-RIDF-21)	NABARD sanctioned a project namely "Underground Pipeline projects for improving irrigation system for the waterlogged areas in South-Western districts. The project aims ate rejuvenating the agriculture production system by reclaiming the seasonal/permanent water-logged areas	Sri Muktsar Sahib, Ferozepur, Fazilka	90% assistance is provided by govt and 10% of the actual cost will be contribute by beneficiary
5.	Project for laying of underground pipeline system for conveyance of irrigation water (NABARD-RIDF-22)	Project aims at improving the sustainability of agriculture through assistance on Underground Pipeline System for optimal use of available water resources in Punjab. It is proposed to undertake community/individual lift/ gravity RCC/ PVC/HDPE UGPS projects from canal/river/rivulet/tubewll/ponds or	11 districts	90% assistance is provided by govt and 10% of the actual cost will be contribute by beneficiary

		any other irrigation source outlet		
6.	Project for utilization of treated water for irrigation from Sewage Treatment Plants in Punjab (RIDF-25)	This programme has been recently sanctioned under which underground conveyance system will be installed from STPs to supply treated water for irrigation.		

III. Ongoing Schemes of other Departments

1. RashtriyaKrishiVikasYojana (Deptt. Of Agriculture)

Under this scheme started in 2007-2008, 90% assistance is provided on Community UGPS Projects under "Project for improving conveyance efficiency of irrigation water for sustaining agricultural production". There is a budget outlay of Rs 86.00 Crore for 2017-2018. There is also a provision of 75% subsidy on Solar Pumps to run Micro Irrigation systems under "Project for Matching irrigation water availability and demand for improved productivity through Efficient On-farm Water Management" with a budget outlay of Rs 23.10 Crore in 2017-2018. Total proposed budget for 13th Plan (2017-22) is Rs 250 crore.

2. Crop Diversification Plan (Deptt. Of Agriculture)

Under this scheme started in 2013-2014, 50% assistance(limited to Rs 22,000/- per hectare) is provided on Individual UGPS projects on own tubewell of farmers. There is a budget outlay of Rs 2.52 Crore for 2017-2018 and proposed budget is Rs 10 crore for 13th Plan (2017-22).

3. Integrated Watershed Management Programme (Deptt. Of Rural Development)

The department is serving as an Implementing Agency for Watershed Development projects with an objective to improve productivity of problematic areas in various districts. Works like land leveling, ponds, drainage line treatment, recharging, plantation; retaining wall, chiseling etc. are carried out under these projects. There is a target to cover 56,416 hectares at a cost of Rs 67.70 Crore during 2017-2018 and proposed budget is Rs 100 crore for 13th Plan (2017-22).

Directory of Schemes in Department of Animal Husbandry, Punjab

I. Centrally Sponsored Schemes

S. No	Scheme/ Component	Activities	Subsidy/ Assistance
1.	**National Livestock Health and Disease Control Programme (NLHDCP)**		
i.	**National Project on Rinderpest Eradication. (100% GOI)**	Under this programme, the state is required to carry out physical surveillance through village, stock route & institutional searches to maintain the freedom status of Contagious Bovine Pleuro-Pneumonia (CBPP) and to undertake surveillance of other animal diseases on routine basis.	Nil
ii.	**Foot and Mouth Disease Control Programme (FMD-CP) (60:40)**	Vaccinate all the eligible cattle and buffalos at six monthly interval, publicity and mass awareness campaign including orientation of the state functionaries for implementation of the scheme, identification of the target animals , monitoring of animal population on random basis, mass vaccination, procurement of cold cabinets and FMD vaccine, assessment of vaccines for their quality, viru typing in case of outbreaks and recording/regulation of animal movement from unvaccinated areas through temporary quarantine/check-posts.	Nil
iii.	**National Control Programme on Brucellosis (60:40)**	Brucellosis is one of the major infectious disease of livestock caused by brucellaanprtis. It causes abortions in the last quarter of pregnancy causing huge economic losses to livestock sector. This disease can be prevented over a period of time by one time vaccination of all eligible female calves. Brucellosis-CP envisages vaccination of female calves between 6-8 months. Adulthood vaccination is also being taken up covering all un-vaccinated adult female bovines in a phased manner. Under this scheme, prophylactic vaccination of young female population is being undertaken besides	Nil

		conducting surveillance of the disease.	
iv.	**Peste des Petits Ruminants-Control programme (PPR-CP) (60:40)**	Peste des petits is a viral disease of sheep and goat. It may lead to ulsration of the mucous membrane and diarrhea. Presently sheep and goat population is about 5 lac and it is mostly reared by weaker section of the society so to control this disease GOI approved this programme.	Nil
2.	**National Livestock Management Programme**		
i.	**National Livestock Mission (60:40)**	Under this programme various types of development projects like setting up of piggery, goatry farms, setting up of backyard poultry units, strengthening of piggery sector are being implemented	Setting up of 1333 Backyard Poultry Units, insurance of 20000 animals
3.	**National Mission on bovine Productivity (60:40)**	**Objectives:** a. To enhance milk production and productivity of bovine population by increasing population of disease free high genetic merit female population and check on spread of disease. b. To improve quality of dairy animals, milk and milk product. c. To increase trade of livestock and livestock product by meeting out sanitary and phytosanitary (SPS) issues. d. To create e-market portal for bovine germplasm for connecting breeders and farmers, especially from sicio-economically weaker section. e. To increase farmers income as a part of goal set by Hon'ble PM for doubling farmer's income by 2022. **Components:** a. PashuSanjivni. b. Advanced breeding technology. c. Creation of "E-PasjudhanHaat"- NakulPrajnanbajar d. National Bovine Genomic Centre for Indigenous breeds (NBGC-IB).	Nil

II. Special Central Assistance Schemes (SCA) (100% GOI)

1.	**Scheme for female buffalo calf rearing**	The objective of the scheme is to improve the economic status of the BPL Scheduled Castes landless labourers involved in the Animal Husbandry practices by providing them one young female buffalo calf (up to the age of one year) for rearing. When these calves are fully developed, the beneficiaries can sell them in the market or can keep the same for milk production.	Each beneficiary will be given one female buffalo calf costing about Rs10000/- per calf de-worming of these calves will be done by the Animal Husbandry Deptt, free of cost
2.	**Setting up of Goat/ Sheep Rearing Units**	The objective of this scheme is to provide financial assistance to BPL SC families.	A financial assistance of Rs 10000/- will be provide to each BPL SC family For this purpose, each identified family will be provided a unit of three goat kids (app. @ Rs 3333/- per goat kid). de-worming of the goat would be done by the Animal Husbandry Deptt, free of cost
3.	**Supply of Hand Driven Chaff Cutter (Toka machine) to landless/marginal Scheduled Castes families.**	The objective of the scheme is to facilitate the landless and marginal below poverty line Scheduled Castes families by providing them a hand driven chaff cutter so that they can feed their milch animals properly for better utilization of nutrients resulting in better health and production.	each beneficiary will be given a good quality hand driven chaff cutter at a cost of Rs.6000/-

Directory of Schemes in Department of Dairy Development

I. SCHEMES BY DAIRY DEVELOPMENT DEPARTMENT, PUNJAB

1. **Establishing New Dairy Unit:** Interested Farmers, after having two-weeks training from the department can apply for establishing new dairy unit.
2. **Dairy Loan for Commercial Dairy Farms:** under this scheme, farmers can establish their own dairy farms. Loan will be provided to the beneficiaries for purchasing dairy animals (at least 20 animals) at minimum interest rates.
3. **Subsidy for Purchase of Machinery at Dairy Farms**:

S.NO	Component	Pattern of Assistance
1.	Fodder Harvester	Subsidy @ 25% subject to the maximum of Rs. 50,000/-
2.	Self-Propelled Forage Cutter (beneficiary must have minimum 10 milch animals to avail subsidy under this)	Subsidy @ 25% subject to the maximum of Rs. 50,000/-
3.	Mobile Automatic Milk Vending Machine Unit	
	a. Mobile Automatic Milk Dispensing Unit b. Bulk Milk Cooler (BMC of 500 ltr) c. Generator (7.5 KVA) d. Vehicle	Subsidy @ 50% subject to the maximum of Rs. 4.00 lakh

4. Capacity Building/Training of farmers:

i. **One day awareness camp**: With the objective of enhancing knowledge and skills of milk producers, one day awareness camps have started by department at block level. Knowledge has been imparted on dairy farming and management techniques at every block.

ii. **Milk production training and extension camp**: This programme has started especially for remote areas where villagers/farmers generally didn't get extension services.

iii. **Milk consumer awareness camp and milk consumer awareness for students by holding camps in Senior Secondary Schools**: It was felt that the most effective deterrent against adulteration in milk and sale of spurious milk was to create awareness among the consumers about the quality of milk they buy. With this background, the Punjab Dairy Development Board (PDDB) launched a sustained campaign through the Dairy Development Department. Under this programme, the Board has provided automatic milk analyzers, adulteration detection kits and other infrastructure. Milk consumer awareness camps are organized with the help of this infrastructure in the cities/ towns after giving due publicity, where milk samples brought by the consumers are tested free of cost and results are given on the spot. The department also hold camps for students of senior classes in the schools to arouse awareness among them of the utility of milk for their physical and mental health, constituents of milk, usefulness of each constituent, possible adulteration and their detection at home. For this purpose, an expert in food science will be engaged to address the students and answer their queries.

iv. **2-week dairy training programme**: The department imparts two weeks training to the un-employed rural youth at the dairy training and extension centers of the department. The main objective of these trainings is to provide knowledge on dairy farming techniques such as breeds of dairy animals, nutrient requirements of animals, construction and management of dairy sheds, management of small animals/calves etc. This training programme is essential for farmers who want to start new dairy units/farms.

v. **6-week dairy training programme:**With the objective of making the dairy farmers self dependant, six week trainings has been started at all the Dairy Training and Extension Centers. Besides, giving knowledge on different techniques of dairy farm management, the candidates are imparted training in artificial insemination, pregnancy diagnosis and milk handling etc.

Directory of Schemes in Department of Fisheries, Punjab

I. Central Sector Scheme on Blue Revolution

Introduction:

Blue Revolution, the Neel Kranti Mission has the vision to achieve economic prosperity of the country and the fishers and fish farmers as well as contribute towards food and nutritional security through full potential utilization of water resources for fisheries development in a sustainable manner, keeping in view the bio-security and environmental concerns.

Objectives:

i. To fully tap the total fish potential of the country both in the inland and the marine sector and triple the production by 2020
ii. To transform the fisheries sector as a modern industry with special focus on new technologies and processes
iii. To double the income of the fishers and fish farmers with special focus on increasing productivity and better marketing postharvest infrastructure including e-commerce and other technologies and global best innovations
iv. To ensure inclusive participation of the fishers and fish farmers in the income enhancement
v. To triple the export earnings by 2020 with focus on benefits flow to the fishers and fish farmers including through institutional mechanisms in the cooperative, producer companies and other structures
vi. To enhance food and nutritional security of the country

STRATEGY - CENTRAL SECTOR ASSISTANCE SCHEMES

The Ministry of Agriculture and Farmers Welfare, Department of Animal Husbandry, Dairying & Fisheries has accordingly restructured the scheme by merging all the ongoing schemes under an umbrella of Blue Revolution. The restructured scheme provides focused development and management of fisheries, covering inland fisheries, aquaculture, and marine fisheries including deep sea fishing, mariculture and all activities undertaken by the National Fisheries Development Board (NFDB).

Scheme Components and Pattern of Assistance:

The Scheme has following broad components (**with respect to Punjab state**):

1. **Development of Marine Fisheries, Infrastructure and Post-Harvest Operations**

S. No	Component	Unit Cost	Central financial assistance	Terms and Conditions
1.	**Strengthening of Post-Harvest Infrastructure**			
1.1	Development of Post-Harvest infrastructure Projects eligible for central financial assistance under this sub-component are: **i.** Ice plants **ii.** Cold Storages **iii.** Ice plants cum-cold storages	Rs.2.50 lakh per tonne	50% of the unit cost with a ceiling of Rs.50 lakh per plant project in General States.	**i.** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **ii.** Cost estimates shall be based on the latest SoRs admissible in the project area and prevailing market rates. **iii.** The beneficiaries shall certify that all operational and maintenance costs of the infrastructure facilities shall be borne by them in future. **iv.** The beneficiaries shall submit self-contained proposals together with documentary evidences in respect of (i) to (ii) above. **v.** The proposal shall be routed through the concerned State Governments/ UTs with clear recommendation.
1.2	Renovation /modernization	Rs 1.50 lakh per tonne	50% of the unit cost with a ceiling of Rs.	**i.** The broad items for renovation/modernization of the existing plants shall

	of existing **a)** Ice plants **b)** Cold **c)** storages and **d)** Ice plants-cum- **e)** cold **f)** storages		30 lakh per plant project	include civil works of the existing building, replacement of plants & machineries, electrification & water supply & sanitation works etc., with a view to enhance the efficacy of the existing plant. **ii.** The beneficiaries should have the ownership of the existing infrastructure plant/facilities. **iii.** Renovation/modernization of existing & operational plants of minimum 10 years old only may be considered for funding on one time basis. **iv.** The beneficiaries should clearly indicate the source of balance funding for the project. **v.** Cost estimates shall be based on the latest SoRs admissible in the project area and prevailing market rates. **vi.** The beneficiaries shall confirm that all operational and maintenance costs of the modernized plant/ infrastructure facility shall be borne by them. **vii.** The beneficiaries shall submit self contained proposals together with documentary evidences in respect of (ii) to (vi) above. **viii.** The proposals shall be routed through the concerned State Governments/ UTs with clear recommendation.
1.3	Development of Retail Fish Markets and Allied Infrastructure	As per actual with a ceiling of as below: (a) Rs.100 lakh for a fish market of 10 unit	50% of the unit cost with a ceiling of **(i)** Rs.50 lakh for a fish market of 10 units of retail	**(i)**Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/permissions etc. in the DPR. No funds shall be provided for the land.

	(Items: Modern hygienic fish market with a minimum of 10 retail outlets, 20 retail outlets, and 50 retail outlets units with common cold storage facility, waste collection & disposal units, fish cleaning and dressing space, auctioning platforms, water and power supply facilities etc.)	retail outlets, (b) Rs 200 lakh for a fish market of 20 unit retail outlets, (c) Rs 500 lakh for a fish market of 50 units or more retail outlets.	outlets, **(ii)** Rs.100 lakh for a fish market of 20 units of retail outlets and **(iii)** Rs. 250 lakh for a fish market of 50 units or more retail outlets.	**(ii)** The beneficiaries shall complete the planning, designing of the market facilities and cost estimates etc. through professionals in the subject. **(iii)** Cost estimates shall be based on the latest SoRs admissible in the project area and prevailing market rates. **(iv)** The post-construction operational and maintenance costs of the infrastructure facility shall be borne by the beneficiaries. **(v)** The beneficiaries shall submit self contained proposals together with documentary evidences in respect of (i) to (iv) above. **(vi)** The proposals shall be routed through the concerned State Governments/ UTs with clear recommendation. **(vii)** NFDB shall take up development and management of fish markets on commercial approach at feasible locations.
1.4	Setting up of mobile/retail fish outlet (Kiosk) (kiosk along with one fish storage/display cabin, one visi cooler, weighing machine, facilities/ utensils for fish	As per actual with a ceiling of Rs. 10 lakh per unit.	50% of the unit cost with a ceiling of Rs. 5 lakh per unit.	**(i)**Beneficiaries shall provide documentary evidence of availability of requisite land (wherever required) free from all encumbrances and financial resources along with necessary clearances/permissions (wherever required) etc. in the DPR. No funds shall be provided for the land. **(ii)**Cost estimate for construction of fish retail outlet/kiosk shall be based on the latest SoRs admissible in the project area, and cost estimate for mobile outlet shall be based on prevailing market

	cutting cleaning facilities)			rates. **(iii)**The post-construction operational and maintenance costs of the fish retail outlet/kiosk/mobile fish retail outlet shall be borne by the beneficiaries. **(iv)**The beneficiaries shall submit self-contained proposals together with documentary evidences in respect of (i) to (iii) above. **(v)**The proposals shall be routed through the concerned State Governments/ UTs with clear recommendation. **(vi)**Fish retail outlet/kiosk shall be of a minimum floor area of 100 Sq.ft (static). **(vii)**Priority shall be given to SCs/STs/women/unemployed youth.
1.5	**Assistance for fish transport infrastructure**			
1.5.1	Refrigerated truck/container of a minimum 10 tonne capacity.	As per actual with a ceiling of 25 lakh per truck.	50% of the unit cost with a ceiling of Rs. 12.50 lakh per truck.	**(i)**Maintenance & operational costs of the fish transport vehicles shall be met by the beneficiaries at their own cost. **(ii)** Government of India shall not be responsible for any losses incurred on procurement, operation, maintenance and management of the fish transport facilities. **(iii)** Beneficiaries should ensure that fish transport facilities are maintained in operational condition. (iv) Beneficiaries shall be abide by rules/regulations, if any imposed by the concerned State/UT as well as Central Government on maintenance & operation of the fish transport facilities.

				(v) Beneficiaries shall ensure that the fish transport vehicles/facilities procured under the scheme will be used only for transport of fish and fisheries related items and not for any other purposes. **(vi)** In case, it is found at any point of time that the fish transport vehicles procured under the scheme are used for other than the fisheries purposes, the Government of India will recover the entire central assistance with interest from the beneficiaries. **(vii)** Beneficiaries will display permanently to the effect that the fish transport vehicle is procured with financial assistance from the Government of India, Ministry of Agriculture, Department of Animal Husbandry, Dairying and Fisheries.
1.5.2	Insulated truck of a minimum 10 tonne capacity.	As per actual with a ceiling of 20 lakh per truck.	50% of the unit cost with a ceiling of Rs. 10 lakh per truck.	
1.5.3	Insulated Truck of a minimum 6 tonne capacity	As per actual with a ceiling of 15 lakh per truck.	50% of the unit cost with a ceiling of Rs. 7.50 lakh per truck.	
1.5.4	Auto rickshaw with ice box	As per actual with a ceiling of Rs.2 lakh per unit	50% of the unit cost with a ceiling of Rs. 1 lakh per unit.	
1.5.5	Motorcycle with ice box	As per actual with a ceiling of Rs. 0.60 lakh per unit.	50% of the unit cost with a ceiling of Rs. 0.30 lakh per unit.	
1.5.6	Bicycle with ice	As per actual with a	50% of the unit cost	

	box	ceiling of Rs. 3000/- per unit.	with a ceiling of Rs. 1500/- per unit.	
Innovative activities				
Innovative Activities (Fisheries Projects: induction of new technology, diversification of species, etc)	Actual cost, with a ceiling of Rs.100 lakh per Project	50% of the unit cost with a ceiling of Rs. 50 lakh for each project for General States.	**(i)** Innovative activities shall broadly cover fisheries management, conservation, induction of new technology in fishing and allied activities including onboard handling of fish, diversification of species to enhance the production and productivity, new technologies in mari-culture, fish culture, Re-circulatory Aquaculture Systems (RAS) with a minimum capacity of 500 tonnes/year, cage/pen culture including auto feed technology, energy efficient operation of post-harvest infrastructure facilities such as FHs/FLCs etc, fisheries waste management, improvement in hygienic conditions of the post-harvest infrastructure facilities including deboning machine etc., post-harvest processing and value added products, promotional activities and any unforeseen activities etc. **(ii)** The States/UTs/Agencies are requested to submit self-contained proposal clearly indicating the innovative activities, capabilities of implementing agencies, anticipated outcomes/outputs (both in terms of qualitative and quantative) and broad long-term impact on local fisheries etc.	

2. Development of Inland Fisheries and Aquaculture

Sr No	Component	Unit Cost	Central financial assistance	Terms and Conditions
1	**Development of Freshwater/Brackish water Aquaculture**			
1.1	Construction of new ponds/tanks (including construction of sluice gates, civil works for water supply and aeration appliances, feed storing shed etc.)	As per actual cost subject to a ceiling of Rs. 7 lakh per ha	50% of the unit cost with a ceiling of Rs.3.50 lakh per ha	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** The constructed ponds shall have a minimum water depth of 1.5m. **(iii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/ collectives subject to viability of pond sizes and with a ceiling of 20 ha. for group/collectives. The project proposals in this category shall be routed through the concerned State /UT Government with proper recommendations. **(iv)** For Central and State Government organizations/ federations/corporations/ agencies etc financial assistance for quantum of hectarage shall be decided on case to case basis in consultation with the concerned applicant.
1.2	Renovation of existing ponds/tanks (repair and	Rs. 3.5 lakh/ha	50% of the unit cost with a ceiling of	**(i)** Beneficiaries shall provide documentary evidence on ownership of the existing

	strengthening of bunds, repair of electrical and water supply works and other accessories/ equipment, desiltation, repair/ installation of sluice gates, site clearing, Dewatering etc.)		Rs.1.75 lakh per ha.	ponds/tanks, financial resources along with necessary clearances/permissions (if any required) etc. in the DPR. **(ii)**Renovation/ repair/ desilting of existing ponds/tanks, other related civil works etc. may be considered for funding only after 5 years on one time basis. **(iii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/ collectives subject to viability of pond sizes and with a ceiling of 20 ha. for group/collectives. **(iv)** The project proposals (except for central Govt organizations/instates) shall be routed through the concerned State/UT Government with proper recommendations.
1.3	Renovation of MNERGA ponds and tanks, new water bodies created under various State Govt/central programme including wetland development department etc.	Rs. 3.5 lakh/ha	50% of the unit cost with a ceiling of Rs.1.75 lakh per ha	**(v)** Beneficiary organizations /agencies shall provide documentary evidence on ownership of the ponds/tanks, financial resources along with necessary clearances/ permissions (if any required) etc. in the DPR. **(vi)** Renovation/repair/ desilting of the ponds/tanks, other related civil works etc. may be considered for funding only after 5 years on one time basis. **(vii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual

				beneficiary, 2 ha x number of members for cooperatives/collectives subject to viability of pond sizes and with a ceiling of 20 ha. for group/collectives. (**viii)** The project proposals (except for central Govt organizations/instates) shall be routed through the concerned State/UT Government with proper recommendations.
1.4	Rejuvenation of Urban/Semi-Urban/Rural Lakes/Tanks for fish culture	Rs. 3.5 lakh/ha	50% of the unit cost with a ceiling of Rs.1.75 lakh per ha	**(i)** Beneficiary organizations/ agencies shall provide documentary evidence on ownership of the ponds/tanks, financial resources along with necessary clearances/ permissions (if any required) etc. in the DPR. **(ii)** Renovation/repair/ desilting of the ponds/tanks, other related civil works etc. may be considered for funding only after 5 years on one time basis. **(iii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/collectives subject to viability of pond sizes and with a ceiling of 20 ha. for group/collectives. **(iv)** The project proposals (except for central Govt organizations/instates) shall be routed through the concerned State/UT Government with proper recommendations.
1.5	**Inputs Cost for freshwater fish culture and brackishwater fish/shrimp culture**			

1.5.1	For freshwater fish culture (unit cost includes cost of fish/prawn seed, feed, manure, disease prevention measures, transportation charges etc.)	**(a)** Finfish Culture: As per actual cost subject to a ceiling of Rs. 1.50 lakh/ha **(b)** Fresh water prawn/trout culture: As per actual cost subject to a ceiling of Rs. 2.50 lakh/ha	**(a)** Central assistance for Finfish culture is restricted at 50% of project/unit cost with a ceiling of Rs.0.75 lakh/ha for all beneficiaries and **(b)** Central assistance for Freshwater prawn/ trout culture is restricted to 50% of the unit cost with a ceiling of Rs.1.25 lakh/ha	**(i)** This input cost shall be provided for the ponds/ water bodies mentioned at S.No.1.1 to 1.4 above with the ceiling indicated therein. **(ii)** Beneficiaries shall be provided central assistance for input costs for the initial crop only in the newly constructed/renovated ponds/tanks. **(iii)** Central assistance for input cost shall be released only after the ponds/tanks are ready for culture.
1.5.2	For brackish waterfish/shrimp culture (unit cost includes cost of fish/shrimp seed, feed, manure, disease prevention measures, transportation charges, etc.)	**(a)**Finfish Culture: As per actual cost subject to a ceiling of Rs. 2.00 lakh/ha **(b)** Culture of shrimp such L.vannamei/ P.monodonetc: As per actual cost subject to a ceiling of Rs. 3.00 lakh/ha	**(i)** Central assistance for Finfish culture is restricted at 50% of unit cost with a ceiling of Rs.1.00 lakh/ha for all beneficiaries in general States **(ii)** Central assistance for culture of *L.vannamei/ P.monodonetc*is restricted at 50% of the unit cost with a ceiling of Rs.1.50	**(i)** This input cost shall be provided for the ponds/water bodies mentioned at S.No.1.1 to 1.4 above with the ceiling indicated therein. **(ii)** Beneficiaries shall be provided central assistance for input costs for the initial crop only in the newly constructed/renovated ponds/tanks. **(iii)** Central assistance for input cost shall be released only after the ponds/tanks are ready for culture.

			lakh/ha to all beneficiaries	
1.6	Establishment of Fish seed hatcheries for Indian Major Carps and other specific cultivable fin fish.	As per actual cost subject to a ceiling of Rs. 25.00 lakh per hatcheries of 2 ha area.	50% of the unit cost with a ceiling of Rs.12.50 lakh per hatchery.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources, necessary clearances/permissions etc. with full technical details including bio-security measures in the DPR. No funds shall be provided for the land. **(ii)** The project proposals from individual beneficiaries, cooperatives/ collectives shall be routed through the concerned State /UT Government with proper recommendations. **(iii)** Fish hatchery shall have a minimum capacity of 10 million fry/year with minimum area of 2 ha. **(iv)** Fish hatchery shall include brooder pond, nursery ponds, rearing tanks, small laboratory, water & electric supply, required infrastructure facilities etc. **(v)** The fish hatchery should be managed by the required qualified technical staff. **(vi)** Beneficiary organizations shall ensure supply of seed produced from the central assisted hatcheries to farmers at affordable/reasonable price. **(vii)** Post construction operation, management and maintenance of the hatcheries shall be carried out

				in a satisfactory manner by the beneficiaries at their own costs. **(viii**) NFDB shall also directly set up & manage the hatcheries with commercial approach at suitable location.
1.7	Establishment of Freshwater/ Brackishwater Prawn Hatcheries.	As per actual cost subject to a ceiling of Rs. 50 lakh per unit with a minimum capacity of 5 million post larvae per year.	50% of the unit cost with a ceiling of Rs. 25 lakh per hatchery.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources, necessary clearances/permissions etc. with full technical details including bio-security measures in the DPR. No funds shall be provided for the land. **(ii)** Fisher cooperatives/ collectives shall be eligible for central financial assistance and should route their proposals through the concerned State /UT Government with proper recommendations. **(iv)** Beneficiary should have the requisite technical expertise and trained manpower for construction, operation and management of the hatchery, **(v)** The hatchery shall include brooder pond, PL rearing tanks, small laboratory, water & electric supply, biosecurity arrangements and required infrastructure facilities etc. **(vi)** Beneficiaries organisations shall ensure supply of seed produced from the central funded hatcheries to farmers at affordable/reasonable price.

				(ix) Post construction operation, management and maintenance of the hatcheries shall be carried out in a satisfactory manner by the beneficiaries at their own costs. **(x)** NFDB shall also directly set up & manage the hatcheries with commercial approach at suitable location.
1.8	Solar power support system for aquaculture	As per actual with a ceiling of Rs. 15.00 lakh per unit	50% of the unit cost with a ceiling of Rs.7.50 lakh per unit.	**(i)** Solar energy system to operate water pump, aerator and other uses in fish culture and fisheries. **(ii)** Beneficiaries shall be provided central assistance for procurement & installation of solar power support system for fisheries on onetime basis. **(iv)** Central assistance for input cost shall be released only after the ponds/tanks are ready for culture.
2	**Cold Water Fisheries and Aquaculture**			
2.1	Construction of permanent farming units and Raceways	As per actual cost subject to a ceiling of Rs. 2 lakh per unit of minimum volume of 50 m^3	50% of the unit cost with a ceiling of Rs. 1 lakh per unit.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** Central financial assistance shall be restricted to a maximum area of 4 units for individual farmer/ beneficiary, 10 units for fisher cooperatives/ federations and Entrepreneurs. The project proposals in this category shall be routed through the concerned State /UT Government with

				proper recommendations.
2.2	Running cold water fish culture in earthen units	As per actual cost subject to a ceiling of Rs. 1 lakh/unit of minimum volume of 100 m^3	50% of the unit cost with a ceiling of Rs.0.50 lakh per unit.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** Central financial assistance shall be restricted to a maximum 4 units of fish culture for individual farmer/ beneficiary, 40 units for fisher cooperatives/ federations and Entrepreneurs. The project proposals in this category shall be routed through the concerned State /UT Government with proper recommendations.
3.	**Development of Waterlogged Areas**			
3.1	Development of Waterlogged areas	As per actual cost subject to a ceiling of Rs 5.00 lakh/hectare.	50% of the unit cost with a ceiling of Rs.2.50 lakh per ha	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** Central financial assistance shall be restricted to a maximum area of 5 ha for individual beneficiary, 5 ha x number of members for cooperatives/ collectives subject to viability of pond sizes. The project proposals in this category shall be routed through the concerned State /UT Government with proper recommendations.
3.2	Inputs Cost (unit cost includes	**(a)**Finfish	**(a)** Central assistance	**(i)** Beneficiaries shall be provided central

	cost of fish/prawn seed, feed, manure, disease prevention measures, transportation charges etc.)	Culture: As per actual cost subject to a ceiling of Rs. 1.50 lakh/ha **(b)** Fresh water prawn/trout culture: As per actual cost subject to a ceiling of Rs. 2.50 lakh/ha	for Finfish culture is restricted at 50% of unit cost with a ceiling of Rs.0.75 lakh/ha for all beneficiaries **(b)** Central assistance for Freshwater prawn/ trout culture is restricted to 50% of the unit cost with a ceiling of Rs.1.25 lakh/ha for all beneficiaries	assistance for input costs for the initial crop only in the newly constructed/renovated ponds/ tanks. **(ii)** Central assistance for input cost shall be released only after the ponds/tanks are ready for culture.
4.	**Productive utilization of Inland Saline/Alkaline Waters for Aquaculture**			
4.1	Construction of new Ponds/tanks.	As per actual cost subject to a ceiling of Rs. 7 lakh per ha.	50% of the unit cost with a ceiling of Rs. 3.50 lakh per ha	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** The constructed ponds shall have a minimum water depth of 1.5 m. **(iii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/collectives subject to viability of pond sizes. The project proposals in this category shall be routed through the concerned State /UT Government with proper

				recommendations. **(iv)** For Central and State Government organizations/ federations/ corporations/ agencies etc financial assistance for quantum of hectarage shall be decided on case to case basis in consultation with the concerned.
4.2	Input cost (unit cost includes cost of fish/prawn seed, feed, manure, disease prevention measures, transportation charges etc.)	**(a)** Finfish Culture: As per actual cost subject to a ceiling of Rs. 1.50 lakh/ha **(b)** Fresh water prawn/trout culture: As per actual cost subject to a ceiling of Rs. 2.50 lakh/ha	(a) Central assistance for Finfish culture is restricted at 50% of project/unit cost with a ceiling of Rs. 0.75 lakh/ha for all beneficiaries in general States (b) Central assistance for Freshwater prawn/ trout culture is restricted to 50% of the unit cost with a ceiling of Rs.1.25 lakh/ha for all beneficiaries	**(i)** Beneficiaries shall be provided central assistance for input costs for the initial crop only in the newly constructed/renovated ponds/ tanks. **(ii)** Central assistance for input cost shall be released only after the ponds/tanks are ready for culture.
5	**Inland Capture Fisheries (village ponds, tanks etc.)**			
5.1	Fish Seed Rearing Units. ***(one time grant)***	As per actual subject to a ceiling of Rs.6.00 lakh/ha	50% of the unit cost with a ceiling of Rs. 3.0 lakh per ha.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land.

				(ii) Beneficiaries shall also produce the documentary evidence on availability of fishing rights/permissions from the competent authorities to fish and develop required facilities in around the reservoirs/tanks etc. **(iii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/collectives subject to viability of fish rearing units and their sizes. The project proposals in this category shall be routed through the concerned State /UT Government with proper recommendations. **(iv)** For Central and State Government organizations/ federations/ corporations/ agencies etc financial assistance for quantum of hectarage of fish rearing units shall be decided on case to case basis in consultation with the concerned. **(v)** The fish rearing units should be planned, designed, constructed and managed under the supervision of qualified technical experts.
5.2	Input cost (unit cost includes cost of fish/prawn seed, feed, manure, disease prevention measures, transportation charges etc.)	**(a)**Finfish Culture: As per actual cost subject to a ceiling of Rs. 1.50 lakh/ha. **(b)** Fresh water	**(a)** Central assistance for Finfish culture is restricted at 50% of project/unit cost with a ceiling of Rs.0.75 lakh/ha for all beneficiaries	**(i)** Beneficiaries shall be provided central assistance for input costs for the initial crop only in the newly constructed fish rearing units. **(ii)** Central assistance for input cost shall be released only after the fish rearing units tanks are ready for rearing.

		prawn/trout culture: As per actual cost subject to a ceiling of Rs. 2.50 lakh/ha.	**(b)** Central assistance for Freshwater prawn/ trout culture is restricted to 50% of the unit cost with a ceiling of Rs.1.25 lakh/ha for all beneficiaries	
5.3	Craft and gear (Unit : boats of appropriate sizes including fishing nets, fish & ice holding boxes etc.).	As per actual cost subject to a ceiling of Rs.1.00 lakh per unit.	50% of the unit cost with a ceiling of Rs.0.50 lakh per unit.	**(i)** Beneficiaries should provide documentary evidence of availability valid fishing license issued by the competent authority. **(ii)** The project proposals of individual beneficiary (consolidated), cooperatives/ collectives shall be routed through the concerned State /UT Government with proper recommendations. **(iii)** Beneficiaries shall also produce the documentary evidence of availability of fishing rights/permissions in the reservoirs/tanks etc. from the competent authorities. **(vi)** For Central and State Government organizations/ federations/ corporations/ agencies etc. financial assistance shall be decided on case to case basis in consultation with the concerned. **(vii)** The fishing craft/boats may also be shared by a group of fishers/collectives. **(viii)** Beneficiaries shall be abide by the fishing regulations (if any) on use of size & type of

				boat/craft and nets etc. **(ix)** Central assistance shall also be provided for replacement existing boats of more than 5 years old.
5.4	Construction of landing centers (landing & berthing platforms, auctioning platform/hall, net mending shed etc.)	As per actual cost subject to a ceiling of Rs. 4.00 lakh per landing center.	50% of the unit cost with a ceiling of Rs. 2 lakh per landing center.	**(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances and financial resources, necessary clearances/permissions etc. with full technical details of the landing centre in the DPR. No funds shall be provided for the land. **(ii)** The project proposals of cooperatives/ collectives shall be routed through the concerned State /UT Government with proper recommendations.
5.5	Riverine Fisheries Conservation and Awareness Programme	As per actual cost subject to a ceiling of Rs. 4.00 lakh per year		(i) The States/ UTs shall submit self-contained proposal with full justification & technical details for conservation and river ranching etc
6.	**Integrated Development of Reservoirs**			
	Integrated Development of Reservoirs (the proposal shall include the need based activities from the broad activities as below: pre-culture preparation, strengthening of bunds,	As per actual.	50% of the unit cost with a ceiling of Rs.1 crore per project.	**(i)** This component will be implemented by NFDB with commercial approach. **(ii)** Beneficiaries shall submit self-contained Detailed Project Report (DPR) with full justification & technical details etc. **(iii)** Beneficiaries shall provide documentary evidence of availability of requisite land free from

	desilting, deweeding etc., hatcheries, fish rearing units, fish stocking, cage culture, feed mills, boats & nets, landing centers, cold storages, ice plants, fish transport facilities etc.),			all encumbrances, financial resources, necessary clearances/ permissions & fishing rights etc. in the DPR. No funds shall be provided for the land. **(iv)** The DPRs shall also contain details of anticipated direct & indirect employment generation, enhancement of fish production and productivity, improvement of economic status of locals, specific time lines for the implementation of the project etc. **(v)** The project proposals of cooperatives/ collectives/ omnibus/ entrepreneurs shall be submitted to NFDB. The central funds will be provided as back ended subsidy in respect of these beneficiaries.
7	**Establishing fish feed mills/plants**			
7.1	Small of capacity 1 to 5 quintals/day) Rs 10.00 lakhs	As per actual cost subject to a ceiling of Rs. 10 lakh per plant	50% of the unit cost with a ceiling of **(i)** Rs.5 lakh per unit for small feed mill plant and **(ii)** Rs.1 crore per unit for large plant.	**(i)** Beneficiaries shall submit self-contained Detailed Project Report (DPR) with full justification & technical details of the plant etc. **(ii)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances, financial resources, necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(iii)** Beneficiaries organisations shall ensure supply of fish feed produced from the central funded feed mill plants to farmers at affordable/ reasonable price. **(iv)** Post construction operation, management and

				maintenance of the feed mills shall be carried out in a satisfactory manner by the beneficiaries at their own costs. **(v)** The project proposals of cooperatives/collectives/ entrepreneurs shall be routed through the concerned State /UT Government with proper recommendations.
7.2	Large (formulated pellet feed plant of a Minimum capacity @ 6 to 10 tonne/hour or more)	As per actual.	50% of the unit cost with a ceiling of **(i)** Rs.5 lakh per unit for small feed mill plant and **(ii)** Rs.1 crore per unit for large plant.	**(i)** This component will be implemented by NFDB with commercial approach. **(ii)** The project proposals of cooperatives/ collectives/ omnibus/ entrepreneurs shall be submitted to NFDB. The central assistance to these agencies will be provided as back-ended subsidy. **(iii)** Beneficiaries shall submit self contained Detailed Project Report (DPR) with full justification & technical details of the plant etc. **(i)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances, financial resources, necessary clearances/permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** Beneficiaries organisations shall ensure supply of fish feed produced from the central funded feed mill plants to farmers at affordable/reasonable price. **(iii)** Post construction operation, management and maintenance of the feed mills shall be carried out

				in a satisfactory manner by the beneficiaries at their own costs.
8.	**Installation of cages/pens in reservoirs and other open water bodies**			
	Cages/pens with inputs in reservoirs and other open bodies (inputs include: cost of fish seed, feed, manure, disease prevention measures, transportation charges etc.)	Rs. 3.00 lakhs per cage including installation and inputs for first crop)	50% of the unit cost with a ceiling Rs.1.50 lakh per cage to State Government, StateAgencies/ Organizations, Corporations, Federations, Boards, Fishers Cooperatives.	**(i)** This component will be implemented by NFDB with commercial approach. **(ii)** The project proposals of cooperatives/ collectives/ omnibus/ entrepreneurs shall be submitted to NFDB. **(iii)** The applicant shall obtain necessary prior permissions from the concerned State/UT Government and other Competent Authorities for installation of cages in reservoirs and other water bodies. **(iv)** Fishermen Cooperative Societies, SC/ST Cooperative Societies, Women Self Help Groups, Registered Entrepreneurs etc. shall be eligible for back ended subsidy for a maximum of 4 batteries of 6 cages each (24 cages) at a particular location. **(v)** The unit cost includes capital, operational and maintenance costs on one time basis. **(vi)** The applicants shall be required to submit self contained project proposals together with documentary evidence of necessary clearances, permissions etc to avail of the assistance.
9.	**Re-circulatory Aquaculture Systems (RAS)**			
	Low cost Recirculatory Aquaculture System (RAS)	As per actual cost with a	50% of the unit cost with a ceiling of	**(i)** Beneficiaries shall submit self-contained Detailed Project Report (DPR) with full

		ceiling of Rs. 15.00 lakh per unit	Rs.7.50 lakh per unit/plant.	justification & technical details etc. **(ii)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances, financial resources, necessary clearances/permissions etc. in the DPR. No funds shall be provided for the land. **(iii)**DPRs shall also contain details of anticipated direct & indirect employment generation to local populations, enhancement of fish production, specific time lines for the implementation of the project etc. **(iv)** Project proposals of cooperatives/ collectives/ omnibus/ entrepreneurs shall be submitted to NFDB. The central assistance to these beneficiaries will be provided as back-ended subsidy. **(vi)** Post construction operation, management and maintenance of the RAS shall be carried out in a satisfactory manner by the beneficiaries at their own costs. **(viii)** Infra structure created should have essential requirements for RAS including water treatment units. **(ix)** The proposed RAS should have a minimum production capacity of 2 MT in each tank of size 5x5x4 m cement tanks.
9.2	Medium Size Re-circulatory Aquaculture System (RAS): minimum 8 tanks; minimum size of each tank 7.65 x 7.65 x 1.5 m (90 m3 each); minimum production capacity of 5 tonnes fish per tank	As per actual, with a ceiling of Rs. 50.00 lakh per unit of minimum 8 tanks. The unit of Medium Size RAS includes about Rs. 31 lakh capital cost and Rs. 19 lakh as operational cost. The central assistance is also provided against the operational cost as one time.		
10	**Stocking of fish fingerlings in beels / wetland**			
	Stocking of IMC fingerlings in	As per actual	50% of the unit cost	**(i)** Beneficiaries shall provide documentary

	wetlands (beels, chaurs etc.) @ 2000 Nos per hectare.	with a ceiling of Rs. 2.50/ Fingerling.	with a ceiling of Rs.1.25 per fingerling.	evidence of availability of requisite wetland/ (beels, jeels, chaurs etc.) free from all encumbrances and financial resources along with necessary clearances/ permissions etc. in the DPR. No funds shall be provided for the land. **(ii)** Central financial assistance shall be restricted to a maximum area of 2 ha for individual beneficiary, 2 ha x number of members for cooperatives/ collectives. The project proposals in this category shall be routed through the concerned State /UT Government with proper recommendations.
11.	**Creation of portal for advisory services to farmers on mobile and internet**			
	Creation of Portal for Extending Advisory Services to Fish Farmers, through mobile appliances/ applications, Internet (IEC), ecommerce platform for suppliers, Traders for end-to-end services to farmers, suppliers, trades and all need based services in fisheries.	As per actual.	100% of the actual cost of the project/component.	**(i)** This activity/component shall be carried out through the central Government Institutions/agencies/ corporations such as NIC, NICSI, Central Public Sector Undertakings (CPSUs), Fisheries Institutes including ICAR Institutes etc. **(ii)** A dedicated portal for fisheries shall be created to extending of advisories, dissemination of information, networking fish markets and fish landing centres, compilation of various fishers related database, e-commerce platform for suppliers, Traders for end-to-end services to farmers, suppliers, trades and all need based services in fisheries etc. **(iii)** The agencies shall submit self

				containedproposals with technical and financial details etc.
12.	**Training, Skill development and capacity building to fish farmers and other stakeholders in all fisheries related activities both marine and inland fisheries.**			
12.1	Dearness Allowance (DA)	Rs. 500/ per trainee/ day	100% of the actual cost of the training programme.	**(i)** Training, skill development & capacity building programmes for fish farmers & fishers and other stakeholders shall be carried through State Governments, UTs, Central Government organizations/ institutions such as KVKs, ICAR Institutes, ATMAs, ATARIs, Fisheries Institutes, State/UT owned organizations, State agriculture/ veterinary/ fishery Universities, fisheries federations, corporations etc. **(ii)** The training batch shall not be less than 50 (fifty) trainees per batch. **(iii)** Training organization shall submit self contained proposal indicating, details of trainees, training courses, venue, infrastructure facilities available for the purpose, duration of the training programme, availability of boarding and lodging facilities, details of resource persons, anticipated outputs etc. **(iv)** Preferably, the trainees shall be identified by the respective State Governments/UTs. The Central Government shall also identify the trainees in consultation (if need be) with the concerned State Governments/UT.
12.2	Travelling Allowance	Actual to and fro fare restricting to 2nd Class Railway Fare		
12.3	Accommodation	As per actual with a ceiling of Rs. 600/- per trainee per day		
12.4	Distribution of training materials (Rs. 200/- per trainee per programme	As per actual with a ceiling of Rs. 10,000/- per training programme for a batch of minimum 50 trainees		
12.5	Food, tea snacks,	As per actual with		

	Refreshment to participants/ trainees during training classes etc: (Rs. 300/- per trainee per day)	a ceiling of Rs. 15,000/ per day for a batch of minimum 50 trainees		
12.6	Demonstration/ Local Field Visit (Rs. 200 per training per programme)	As per actual with a ceiling of Rs. 10,000/- per training programme for a batch of minimum 50 trainees		
12.7	Stationeries and other unforeseen items (Rs. 100/- per trainee per training programme)	As per actual with a ceiling of Rs. 5000/- per training programme for a batch of minimum 50 trainees		

4. National Fisheries Development Board and its activities

S. No	Component	Unit Cost	Central Financial Assistance	Terms and Conditions
1	**Fish Seed production including development of brood banks (National and Regional)**			
1.1	Hatcheries	Setting up fish hatcheries are covered in Inland component. NFDB, with the approval of DADF shall add any additional hatcheries required keeping in view the needs of the sector and broad funding patters.		
1.2	Establishment of freshwater / brackish water Fish / Shrimp/ Trout Brood Banks	As per actual with a ceiling of Rs. 500 lakh per brood bank of 5 ha area	50% of the unit cost with a ceiling of Rs. 250 lakh per Brood bank.	**(i)** Beneficiaries shall submit self contained Detailed Project Report (DPR) with full justification & technical details. **(ii)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances, financial resources, necessary clearances/ permissions (wherever required) etc. in the DPR. No funds shall be provided for the land. **(iii)** Post construction operation, management and maintenance of the integrated cold chain infrastructure facilities shall be carried out in a satisfactory manner by the beneficiaries at their own costs. **(iv)** The project proposals of cooperatives/collectives/ entrepreneurs shall be routed through the concerned State /UT Government with proper recommendations.

				(v) The Central and State Government organizations/ federations/ corporations/ agencies etc., shall submit the proposals directly to NFDB and the financial assistance shall be decided on case to case basis in consultation with the concerned. **(vi)** NFDB shall set up and manage the Brood banks infrastructure facilities with commercial approach at suitable location
2	Fish feed including establishment of feed mills	This is covered in Inland component. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns.		
3	Development of post-harvest, value addition infrastructure and marketing	This is covered in marine component. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns.		
4	**Cold chain development**			
4.1	Certain items of the cold chain for fisheries such as ice plants, cold storages, fish marketing facilities have been covered under the marine component. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns.			
4.2	Integrated Cold chain development covering the activities from fry to frying pan such as pre –processing, and processing of fish, fish transportation (insulated and refrigerated vehicles), retail outlets, moveable fish markets, kiosks etc.	As per actual with a ceiling of Rs. 500 lakh per project	50% of the unit cost with a ceiling of Rs. 250 lakh per project unit.	**(viii)** Beneficiaries shall submit self-contained Detailed Project Report (DPR) with full justification & technical details. **(ix)** Beneficiaries shall provide documentary evidence of availability of requisite land free from all encumbrances, financial resources, necessary clearances/permissions (wherever required) etc. in the DPR. No funds shall be provided for the land.

				(x) Post construction operation, management and maintenance of the integrated cold chain infrastructure facilities shall be carried out in a satisfactory manner by the beneficiaries at their own costs. **(xi)** The project proposals of cooperatives/collectives/ entrepreneurs shall be routed through the concerned State /UT Government with proper recommendations. **(v)** The Central and State Government organizations/ federations/ corporations/ agencies etc., shall submit the proposals directly to NFDB and the financial assistance shall be decided on case to case basis in consultation with the concerned. **(vi)** NFDB shall set up and manage the Brood banks infrastructure facilities with commercial approach at suitable location
5	Development of Inland Fisheries	This is covered in Inland component. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns.		
6	Promotion of Small Scale Fisheries	This is covered in Marine and Inland components. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns		
7	Provision of alternative livelihood	This is covered in Marine and Inland components. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding patterns.		
8	Skill up-gradation of stakeholders in the fisheries sector	This is covered in Inland component. NFDB, with the approval of DADF shall add any additional items required keeping in view the needs of the sector and broad funding		

		patterns.

Directory of Schemes in Department of Forests and Wild Life Preservation, Punjab

II. CENTRALLY SPONSORED SCHEMES

1. Green India Mission

It is a centrally sponsored Scheme. The National Mission for a Green India (GIM) was announced as one of the eight Missions under the National Action Plan on Climate Change (NAPCC). GIM is based on a holistic view of greening and focuses not on carbon sequestration targets alone, but, on multiple ecosystem services, especially, biodiversity, water, biomass etc. along with climate adaptation and mitigation as a co-benefit. It has the following broad objectives to be covered over next 10 years:

a) Increased forest/tree cover to the extent of 5 million hectare (M.ha) and improved quality of forest/tree cover of another 5 M.ha of forest/non-forest lands.
b) Improved/enhanced eco-system services like carbon sequestration and storage (in forests and other ecosystems), hydrological services and biodiversity; along with provisioning services like fuel, fodder, and timber and non-timber forest produces (NTFPs).
c) Increased forest based livelihood income of about households.

2. Sub-Mission on Agro-Forestry

The SUB-MISSION ON AGRO-FORESTRY (SMAF) is a scheme started by Ministry of Agriculture and Farmers Welfare, Government of India under National Mission for Sustainable Agriculture (NMSA) in year 2016-17 with a focus to enhance income of farmers and also to diversify land use from agriculture to agro-forestry to certain extent. This scheme is operational since Year 2016-17 with funding pattern 60:40 as GOI: State Govt. basis. Under this scheme, farmers are to be given financial assistance by way of direct benefit transfer through their Aadhar linked saving bank accounts based on the plants planted in their agricultural field and their survival.

Implementation of this scheme requires registration of individual farmers who are willing to plant trees on their farm lands. In order to make this scheme successful following aspects are to be taken care of: –

1. Registration of genuine farmers based on their records i.e. Aadhar card, Documents required to establish ownership and possession of the farmland and Aadhar linked saving bank account number etc.
2. Monitoring of plantations carried out by the farmer on their farmlands.

The monitoring of the scheme is done by the Department through a Mobile App namely "**SMAF Punjab**" developed by State Department of Forests and Wildlife Preservation, Punjab to ensure smooth, fast and effective implementation of the scheme in the field with utmost transparency starting from registering the farmer to release of financial assistance through DBT and to enhance the efficiency and ease of registration for farmers and field verifications.

The scheme is being implemented throughout the state of Punjab, which means that farmers residing in more than 12581 villages of Punjab are eligible for financial assistance under this scheme. The awareness about the scheme is created through wide spread advertisements in local newspapers, advertisements on Radio, meetings with farmers etc. This is a **Demand Driven Project**, not target oriented.

Mission Objectives: Sub-Mission on Agro-forestry will have following objectives:

1) To encourage and expand tree plantation in complementary and integrated manner with crops and livestock to improve productivity, employment opportunities, income generation and livelihoods of rural households, especially the small farmers.

2) To ensure availability of quality planting material like seeds, seedlings, clones, hybrids, improved varieties, etc.

3) To popularize various Agro-forestry practices/models suitable to different agro ecological regions and land use conditions.

4) To create database, information and knowledge support in the area of agro-forestry.

5) To provide extension and capacity building support to agro-forestry sector.

Project Activities and Pattern of Assistance: The Sub-Mission has following broad interventions:

1. **Nursery Development for quality planting material (NDQPM):** Assistance shall be given for nurseries (small, big & hi-tech nurseries) for producing quality planting material to meet the requirement of planting material. Eligible components and pattern of assistance is as under:

Cost Norms and for Nursery Development for Production of Quality Planting Material (NDQPM):

Sr. No	**Nursery area(ha)**	**Indicative field of expenditure**	**indicative Unit cost (Lakh Rs)**
1)	Small Nursery (0.5ha)**	Land preparation etc., nursery equipments, seed/mother scion production/root stock production etc., infrastructure and other essential operational costs etc. as per norms as existed in case of MIDH	10.00(100% cost to public sector, and 50% of cost to private sector, as credit linked back ended subsidy)
2)	Big Nursery (1.0 ha)		16.00
3)	Hi-tech** Nursery		40.00 (100% cost to public sector, and 40% of cost to private sector, as credit linked back ended subsidy)

** Cost norms as already approved under National Bamboo Mission (NBM)

Mandatory Requirement for availing support for Nursery Development

Sr. No	Type of Nursery	Basic Requirement	Infrastructure Requirement
1)	Small Nursery (0.5ha)**	**Selection of Site**: Nurseries will be established only to produce planting materials which are suitable for that agroecology. The nurseries should be well connected to road / rail networks to facilitate transport. Sites exposed to strong winds and with danger of flooding or landslides should be avoided. **Soil Conditions**: Well drained, light to medium textured fertile soils. **Source of Irrigation**: Availability of good quality assured irrigation source is an essential pre-requisite for setting up of a commercial nursery production unit. For increased water use efficiency, Drip irrigation system, rose cans or micro sprinklers should be used. **Layout of Nursery**: Generally a good nursery must consist of water tank/pond, water pump/pump house, seed and fertilizer store room, implement shed, germination/main bed area;	• Fencing • Water Source (Irrigation source/ Ponds/ Tanks/ Well/ Tube well) • Energy Source (electricity or Genset) • Water lifting devices • Water distribution system • Farm machineries required for land preparation, bed preparation and other operations • Other equipments& tools for raising seedlings • Composting Unit • Watch & ward
2)	Big Nursery (1.0 ha)		As above.Number of equipments may increase or decrease based on size of nursery
3)	Hi-tech** Nursery		**Office**: An office building, best located near the main entrance and storage area for the nursery records are basic requirements **Laboratory**: A mini laboratory attached to the nursery for use by the technical/skilled staff for observing/recording the growth and developmental irregularities if any, disease/pest problems, and

		potting/container filling area, seedling raising area, worker mess/hall, office room, propagation structures, compost area, etc. **Inputs**: Availability of nutrients to seedlings, well decomposed farm yard manure (FYM), plant protection chemicals, root harmones etc.	nutritional deficiencies/imbalances during the nursery growth of the planting stock. **Composting unit**: Composting unit attached to the nursery is desirable. The unit will consist of a roofed shed with partially open side walls for encouraging very good air-circulation, a shredder machine to chop the plant material, and sieves to clean the final product. **Media sterilization Area**: For steam sterilization, soil solarization or fumigation of potting media **Potting shed**: To carry out the work of preparing the containers, mixing the potting mix, filling the bags and potting the planting stock, a spacious shed is required in the nursery **Net house**: A portion of the nursery should have Net house made of plastic shade nets that can cut the light intensity by 50% **High-tech green house**: Green-house with automated misting equipments and temperature control is desirable but low cost polytunnels can also be an alternative **Irrigation systems**: Modern mechanized irrigation systems with sprinklers, misting units, high pressure pumps and filtering equipment's for fertigation are essential components to be installed and used in nurseries **Pump house with overhead water storage tanks**: The tanks should have enough storage capacity to meet at least 2 days irrigation requirements **Nursery records**

Note: a. The Small nursery will have a minimum capacity to produce 25,000 plants per year.

b. The Big nursery will have a minimum capacity to produce 50,000 plants per year.

c. The High-tech Nurseries will have a minimum capacity to produce 100,000 propagules per year

d. Assessment of nursery for its quality/standard will be done on the basis of its location, quality of mother plants, techniques for nursery development, infrastructural facilities created, irrigation facilities with water use efficiency, bio-security & disease free conditions and overall management practices. Assessment of nursery for accreditation / certification will be undertaken either through any of the available institutional certification mechanism of Central / State Government or through suitable institutional mechanism to be devised specifically for this purpose in future.

2. **Peripheral and Boundary Plantation(PBP)** : To make potential use of the area occupied by these bunds around the periphery of the farmers fields, tree species can be grown as peripheral/boundary plantations to add more income to the farmers' basket. This will not only make effective use of the precious land for livelihood support but also for generating additional income opportunities to the farmers. It will also help in stabilizing the bunds and reducing soil erosion. Eligible components and pattern of assistance for PBP is as under:

Sr. No.	**Type of Interventions**	**Indicative Unit cost per plant (Rs.)**
1)	Pre-Plant activities/Land clearing/maintenance etc.	10.00
2)	Digging /Planting etc	6.00
3)	single unit Planting material etc	15.00
4)	Transportation charges	1.00
5)	Critical inputs viz., FYM, Fert., seed treatment, PP chemicals etc.	10.00
6)	Planting cost	2.00

7)	Fencing	10.00
8)	Maintenance (weeding+ watering etc.)	16.00
	Total	70.00
Note: (i) The activity wise cost indicated above are tentative and states have the flexibility to formulate their own estimate based on local requirements subject to a maximum of Rs. 70/- per plant (ii) The assistance will be given in the year wise proportion of 40:20:20:20 for four years.		

3. **Low Density Plantation on Farm Lands (LDPFL):** Low Density Block Plantation (HDBP) ranging from more than 100 plants/ha to more than 500 plants/ha without sacrificing the yield of the existing crops/cropping systems, shall be incentivized at the proportionate rates as applicable to per plant expenditure. Eligible components and pattern of assistance for LDPFL is given as under:

Sr.No.	**Type of plantations' magnitude (no of plants/ha)**	**Indicative total cost** (Rs)
1)	Less than 100	As per actual no of plants @ Rs.70/- per plant
2)	>100 upto 500	28000 (or in proportion to planting intensity)
Note: The cost will be calculated on proportionate basis as per the no of plants/trees per block		
Note: (i) The cost will be calculated on proportionate basis as per the no of plants/trees per block. (ii) The assistance will be given in the year-wise proportion of 40:20:20:20 for four years.		

4. **High Density Block Plantation (HDBP):** High density Block Plantations on farm lands (HDBP) will be supported as a complementary source of income to the farmers. Differential planting densities ranging from more than 500 plants/ha to 1500

plants/ha as intermediate blocks / strip plantations /wind breaks would be supported. Farmers can take up block plantation in waste and degraded land not suitable for growing crops to make productive use of these lands in creating livelihood and income opportunities for them. In addition, the tress will help in enriching the soil and making it fertile & more productive thereby bringing land under crops in times to come. Eligible components and pattern of assistance for HDBP is given as under:

Sr.No.	**Magnitude of block Plantations(no of plants/block of 1 ha)**	**Indicative total cost (Rs) for the block**
1)	500 to 1000 (spacing 3.5mX3.5m)	30000
2)	>1000 to 1200 (spacing 3mX3m)	35000
3)	>1200 to 1500(spacing 2.5mX2.5m)	45000
4)	>1500(spacing less than 2.5mX2.5m))	50000
Note:(i) The cost will be calculated on proportionate basis as per the no of plants per block with a spacing indicated above; (ii) The assistance will be given in the year wise proportion of 40:20:20:20 basis for four years		

5.Capacity Building & Trainings: Capacity Building and Training will be one of the important interventions of the sub-mission. Activities like training of farmers/field workers with a view to ensure growing quality planting material, skill development, awareness campaign, Publications, Information sharing, exposure visits at national and international levels, seminars/Workshops at national/international levels etc. would be supported under this. States can utilize upto 5% of the allocated funds for capacity building and training activities.

3. Intensification of Forest Management (60:40)

Under this scheme, funds are used for the better protection and conservation of forest resources of the State. These measures include management of forest fires, maintenance of fire lines, purchase of fire fighting equipment, demarcation of forest boundaries, improving communication through wireless equipment's and creation of awareness among the local masses. The following components are incorporated in the scheme:-

- Forest Fires Control and Management
- Strengthening of infrastructure for forest protection
- Working Plan Preparation/ Survey and Demarcation
- Protection and Conservation of sacred groves
- Conservation and Restoration of unique vegetation and Eco-system
- Control and Eradication of Forest Invasive Species.

4. PUNCAMPA

Objectives and Functions: The Punjab State Compensatory Afforestation Fund Management and Planning Authority shall be an instrument to accelerate activities relating to conservation of forests and wildlife, development of infrastructure in these sectors and other allied works. Its prime tasks are as under:-

a) Conservation, protection, regeneration and management of existing forests;
b) conservation, protection and management of wildlife and its habitat within and outside protected areas including the consolidation of the protected areas;
c) compensatory afforestation to be done in lieu of diversion of land for non-forestry uses under Forest Conservation Act 1980
d) environment services:-
    i) provision of goods such as wood, timber forest products, fuel, fodder and water, and provision of services such as grazing, tourism, wildlife protection and life support;
    ii) regulating services such as climate regulation, disease control, flood moderation, detoxification, carbon sequestration and health of soils, air and water regimes;

iii) non material benefits obtained from ecosystems, spiritual, recreational, aesthetic, inspirational, educational and symbolic; and

iv) supporting such other services necessary for the production of ecosystem services, biodiversity, nutrient cycling and primary production.

v) Research, training and capacity building.

vi) Promoting e-governance and creating transparency of the programme.

vii) IEC activities for mobilizing citizen support.

viii) Monitoring and evaluation of the above activities.

III. STATE FUNDED SCHEMES

1. Conservation, Management & Development of Wildlife in the State:

This is the only scheme of the Department which deals with all wildlife conservation and development related issues. The Department has been implementing this scheme with following components for conservation and protection of wildlife in the State:

Target:1. Provision for in-situ conservation in Protected Area and outside Protected Areas.

2. Provision for ex-situ conservation – Upkeep feed fodder, maintenance and up gradation of zoos.

3. Provision for rescue of animals and other expenditure including administrative expenditure and contingency.

4. Provision for providing compensation for man-animal conflict.

2. Ghar GharHariyali

This is the initiative of the State Government under which forest department is distributing plants free of cost to the citizen of the State. The forest department has developed a mobile application named as i-Hariyali to help itself in bridging the gap between the department and the people of the State. Using this application people can book their plants from nearby nurseries

very easily. **Objectives and Explanatory Memorandum of Plan Scheme Ghar GharHaryali.:** The main objective of this scheme is to make planting of more trees by each household using a missionary approach. This will ensure involvement of citizen on a large scale and try to in still the feeling of protection of forests and trees in them.

The scheme will have many fold benefits as it will help in reducing the environment pollution load. It is well known fact that trees and plants have the capacity to reduce dust, smoke and other pollutants in the air. Apart from this, other benefits like improvement in air quality, increase in biodiversity and increased nutritional levels will be added benefits from the scheme

Under this scheme approximately 15 lakh plants will be raised in full nurseries in the state for the year 2020-21. The department will provide 10-15 plants of native variety such as Shisham, Kikar, Amb, Jamun, Amla, Neem, Chandan etc. to each household at free of cost as approved by the State Govt.

3. Greening Punjab Mission (GPM)

In pursuance of the decision of the council of the minsters in the year of 2012, a corpus fund titled Greening Punjab Fund was constituted for giving impetus to the activities related to conservation and development of existing forest and tree cover and further enhancement of the same in the State. The fund shall be used for creation of Green cover by planting maximum number of trees on all available lands in the State both under the control of Forest Department as well as non-forest land in villages, urban and peri urban areas such as panchayat lands, focal points markets, hospitals, institutional land etc. It also aims to raise nurseries including purchase of seeds, seedlings, fertilizers and other material for raising for nurseries and other related activities for the purpose of creation of good quality planting stock for Greening Punjab Mission Activities

4. Punjab Forestry Watershed Development Project (Proposed to be renamed as Punjab Community Forestry Project and promotion to e-governance, Research, Training and Extension)

This is only State funded forestry scheme. Under this scheme forest development and protection works are carried out. Under this scheme Plantation works, Promotion of ICT and e- governance in the state, Forest research & Training, Maintenance of Forest awareness parks, Upkeep of Buildings, Strengthening of forest conservation wing, Soil & moisture conservation works in kandi area and other activities is undertaken in the year 2019-20.