ADB
ASIAN DEVELOPMENT BANK

DEPARTMENT OF HORTICULTURE HIMACHAL PRADESH

Himachal Pradesh
Subtropical Horticulture, Irrigation & Value Addition
Project Readiness Financing
(HPSHIVA PRF)

CS03: Draft Himachal Pradesh Horticulture Policy 2022 Report

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Contents

List of Abbreviations

AIF	Agriculture Infrastructure Fund
APEDA	Agricultural and Processed Food Products Export Development Authority
APMC	Agricultural Produce Market Committee
CAGR	Compound Annual Growth Rate
CCDP	Crop Cluster Development Project
CFB	Corrugated Fiber Board
CoE	Center of Excellence
DBT	Direct Benefit Transfer
DoH	Department of Horticulture
EoU	Export Oriented Units
FAO	Food and Agriculture Organization
FMTTI	Farm Machinery Training & Testing Institutes
FPC	Farmer Producer Company
FPO	Farmer Producer Organisation
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GLOBALGAP	Global Good Agricultural Practices
GoI	Government of India
GST	Goods and Sales Tax
Ha	Hectare
HDP	High Density Plantation
HMNEH	Horticulture Mission for Northeast & Himalayan States
HP	Himachal Pradesh
HPHP	Himachal Pradesh Horticulture Policy
HPSAMB	Himachal Pradesh State Agricultural Marketing Board
HPTDC	Himachal Pradesh Tourism Development Corporation
ICAR	Institutions of Indian Council of Agricultural Research
ICT	Information Communication Tools
INM	Integrated Nutrient Management
INR	Indian Rupee
IPM	Integrated Pest Management
IPNM	Integrated Pest & Nutrient Management
KVK	Krishi Vigyan Kendra
MHE	Material Handling Equipment
MIDH	Mission for Integrated Development of Horticulture
MMFBY	Mukhya Mantri Fasal Bima Yojana
MMKSY	Mukhya Mantri Khet Sanrakshan Yojna
MoFPI	Ministry of Food Processing Industries
MOVCDNER	Mission for Organic Value Chain Development for North- Eastern Region
MSME	Micro, Small & Medium Enterprises
MT	Metric Ton
NABARD	National Bank for Agriculture and Rural Development.
NBFC	Non- Banking Financial Company
NICSI	National Informatics Centre Services Inc.
ODOP	One District One Product
PCMU	Project Consultancy and Management Unit
PKKKY	Prakritik Kheti Khushal Kisan Yojana
PMFBY	Pradhan Mantri Fasal Bima Yojana

PMFME	Pradhan Mantri Formalisation of Micro food processing Enterprises
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PPP	Public Private Partnership
PWD	Public Work Department
QCI	Quality Council of India
R&D	Research and Development
SAU	State Agricultural Universities
SHG	Self Help Groups
SMAM	Sub Mission on Agricultural Mechanization

Draft Himachal Pradesh Horticulture Policy 2022

1. Introduction

The horticulture and allied industries embrace a diverse spectrum of sectors which include fruit production, ornamental plant production (including Floriculture), Mushroom, Honey, and novel crops.

The Food and Agriculture Organization (FAO) declared the past year 2021 as the International Year of Fruits and Vegetables. World fruit production went up 54% between 2000 and 2019, to 883 million tons, which represents an increase of 311 million tons. Globally, India is the second largest producer of fruits and vegetables in the world constituting share of 11.38%. India is producing about 331.05 million tons (2020-21) of horticulture produce. The cultivation area under horticulture crops is growing at a CAGR of 1.4% as compared to food grains which is growing at a CAGR of 0.7% (2015-2019).

The Himalayan ecosystem of Himachal Pradesh offers an enabling environment characterized with favorable microclimatic conditions ranging from temperate to sub-tropical regions. HP produces fruits including Apples, Peaches, Plums, Pears, Citrus, Mango, Kiwi, Apricots along with many other exotic fruits. The state also produces a range of sub-tropical fruits including Citrus, Pomegranate, Litchi, Guava, Mangoes, and so forth. The state has emerged as a leading producer of Apples, offseason vegetables and other ancillary horticultural produce like Flowers, Mushroom, Honey etc.,

Apples make up the largest volume (85%) of fruit produced in the state constituting 49% of the total area under fruit cultivation. The other fruits make up small volumes of the total output. For Mango, Guava, Litchi, Sweet Orange, Plum and Pomegranate, average yields in Himachal Pradesh are much lower than in other states where these fruits are produced.

Majority of cultivation in the state is dependent on rainfall with 80 percent of the area under rain-fed condition, however due to physical conditions state faces challenges in irrigation. There is need for strengthening irrigation infrastructure with adoption of climate resilient technologies and practices like micro irrigation.

Hence, it is necessary to explore and harness the vast horticulture potential of the hill State through diversified horticulture production in varied Agro- ecological zones. The policy will help the state of Himachal Pradesh to reach a “tipping point” where stakeholders enjoy economic success by harnessing sustainable development objectives and achieve greater competitiveness.

2. Vision

To envision Himachal Pradesh as “Fruit Bowl of India”

3. Mission

To double the State GDP share of Horticulture sector from 3.6% to 7.2% by 2032; by focusing on diversification, sustainability, developing entrepreneurship and doubling farmers’ income in the sector.

4. Objectives

The policy aims at achieving the following objectives:

i. Area expansion, irrigation, quality & productivity improvement under horticulture crops through adoption of ultra/ high- density plantation, diversification, Introduction of improved fruit varieties, rootstocks and new crops.

ii. Encourage farmers to grow export quality fruits and other horticultural produce.

iii. Collectivization of farmers to leverage economies of scale, access to finance, efficient market linkages, access to technology, new & diversified business opportunities.

iv. Creation and strengthening of value chain infrastructure to curtail losses and to improve production.

v. Creation of traceable supply chain of produce/products.

vi. Strengthening Research & Development (R&D) activities and effective capacity building of stakeholders.

vii. Creation of alternate revenue streams for farmers/entrepreneurs in the sector.

viii. Entice private players for investment in Horticulture sector.

5. Strategies

A. Infrastructure Development

- Improvement of water management and conservation practices through adoption of climate resilient irrigation technologies, water harvesting & storage practices for development of Horticulture.
- Public/ Private investments for development of infrastructure in the sector.
- Explore PPP possibilities for development of infrastructure.
- Development of Multi facility Laboratories for certification of disease-free planting material, soil testing, leaf nutrient testing etc.
- Development of value addition infrastructure all along the value chain. Certain infrastructure may have export orientation.

B. Augmentation of Value Chain including Technology

- Modernization of indigenous nurseries to produce pest and disease-free high-quality planting material in the state to minimize import of fruit cultivars and rootstocks for enhancing quality fruit production.
- Import select elite planting material from world's best nurseries to mitigate climate change impact and overcome future challenges.

- Development of indigenous varieties adaptable to changing climatic conditions, heat stress, frost tolerant and resistant to specific pest and diseases through indigenous fruit breeding, tissue culture and genetic engineering.

- Emphasis on organic farming and Natural Farming with specific branding and provision of separate market network. Promote adequate enabling environment for organic and natural products.

- Promote balanced use of fertilizers with adoption of Integrated Pest & Nutrient Management (IPNM) focusing on soil health, organic fertilizers, biofertilizers, vermi-compost etc.

- Promote the use of nano technology and micro technology- based natural products in horticultural crops.

C. Capacity Building & Institutional Strengthening

- Institutionalize monitoring & evaluation mechanism for policy / program implementation by establishing Project Management Unit of professional agency.

- Utilization of Information Communication Tools (ICT) for the knowledge dissemination to the extension workers, producers and the stakeholders.

- Department of Horticulture may augment the existing eUdyan portal or develop new portal along with central dashboard for effective monitoring and implementation of all scheme/projects. The Project Consultancy and Management Unit (PCMU) may develop such platform. This will enable department with real data to make informed decisions.

- Augment Technical Human resources within the Department of Horticulture

D. Research & Development

- Creation of funds for Research and Development activities in the university focused on research on nanotechnology, hydroponics, aeroponics, mass multiplication, climate resilient varieties, biofertilizers and biopesticides, standardization of package of practices, post-harvest management technology.

- R&D on crop specific appropriate packaging solutions for enhancing shelf life and prevention of logistics related bruising and other injuries to the crop.

- Strengthening existing Agriculture Universities/ Colleges/ Institutes in Himachal Pradesh under Horticulture.

- Technical Collaboration with national level institutions (ICAR, CSIR, CIPHET, NRCs etc.)

- Student exchange programme with international universities of Israel, The Netherlands, UK etc.

E. Alternative Interventions

- Horticulture cluster led rural resurgence for generating alternate revenue stream by encouraging visitors to experience rural HP by exploring tourism potential of agri/rural set-up.

- It may act as alternate revenue source for farmers/FPOs and thus provide them sustainability. It may also help decongesting major destinations.

- For such initiatives, active coordination with Rural Department, Tourism Department agriculture department, Jal Shakti Vibhag, rural department etc. is required.

- Organization of Fruit (Guava, mango, litchi etc.) melas

- Promotion of rural haats.

6. Policy Scope and Period

The scope of the policy covers entire State for development of horticulture to carry out activities relating to production and post-harvest management of **fruit crops, floriculture, apiculture, mushrooms, medicinal and aromatic plants etc.,** Within its ambit it also covers infrastructure development for - planting material production, pre- and post-harvest infrastructure, value addition and processing, logistics and transport, green transport, branding, marketing and outreach activities.

This Policy shall be called as **"Himachal Pradesh Horticulture Policy" ("HPHP")** and will remain in force from the date of its notification by the State Government until substituted by any other policy. Periodic (5 year) review is proposed.

7. Eligible Persons/ Organizations

Individuals, Group of farmers/ growers, Farmer Producer Organizations (FPOs)/ Farmer Producer Companies (FPCs) registered under respective Companies Act/ Cooperative Societies Act/ Societies Act/ Partnership/ Proprietary firms, Limited Liability Partnership, Companies, Corporations, Self Help Groups (SHGs), Cooperatives, Cooperative Marketing Federations engaged in Horticulture sector would be eligible for financial assistance as per various schemes to be framed for implementation of Himachal Pradesh Horticulture Policy, 2022.

8. Proposed Assistance/ Incentives and Support

For implementation of the objectives, strategies, and development of the sector, following incentives, support measures are proposed:

Table 1: Proposed Incentives/ support under policy

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
A	**Infrastructure Development**			
In addition to the following, the incentives under The Himachal Pradesh Industrial Investment Policy, 2019 shall also be applicable.				
1.	Irrigation	80% for small and marginal farmers and 45% for other farmers for establishment of irrigation infrastructure in horticulture crop orchards, subject to cost norms of existing PMKSY Per Drop More Crop. For other interventions und er PMKSY 100% assistance will be provided for community-based irrigation system	Assistance @ 55% of the cost for small and marginal farmers and 45% for other farmers	PMKSY Per Drop More Crop.
2.	Integrated laboratory with Plant tissue analysis labs, soil, water, Maximum Residual Limit analysis (MRL), Heavy Metal Analysis labs.	100% assistance to public sector and 60% to Private sector, subject to maximum project cost norm of INR 2 crore/ unit. The major equipment in such facility is Soil Pycnometer, Atomic Absorption Spectroscopy (AAS), Bio Oxygen Demand (BOD) Incubator with humidity control- Fully Automatic, Humidity Oven, Horizontal laminar flow, Compound microscope trinocular, Digital weighing balance, Stereo binocular microscope, Autoclave (vertical), Spectrophotometer.	100% to public sector and 50% to private sector for Plant Tissue analysis lab. Project cost norm of INR 25 lakhs.	MIDH- Promotion of Integrated Nutrient Management (INM) and Integrated Pest Management (IPM)

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
3.	Input Shops	80% of the project cost as back ended subsidy in case of FPOs, 50% in case of private player. Maximum limit of project cost of INR 10 Lakhs.		
4.	Collection Centers	80% of the project cost as back ended subsidy and 20% may be the Promoter's Contribution. Maximum limit of project cost of INR 30 Lakhs.	1. Credit linked back-ended subsidy @ 55% for establishment of collection, sorting/ grading, packing units with cost norm of 15 lakh 2. Collection centers/ packhouse development in different clusters including grading/ packing machines, cold storages, reefer vans, reefer container etc., 90% assistance	1. MIDH- Functional Infrastructure 2. Crop Cluster Development Project, Haryana
5.	Packhouses	55% of the project cost as back ended subsidy and 45% may be the Promoter's Contribution. Maximum limit of project cost of INR 4 Crores.	1. INR 50.00 lakh per unit (Credit linked back-ended subsidy @ 50% for individual entrepreneurs.) . Pre- colling unit: Rs. 25.00 lakh / unit with capacity of 6 MT. Credit linked back-ended subsidy @50%. Cold room staging: Rs. 15.00 lakh/ unit of 30 MT capacity. Credit linked back-ended subsidy @50%. Refrigerated Transport Vehicle: Rs. 26.00 lakh for 9 MT, and prorata basis for lesser capacity, but not below 4 MT. Credit linked back-ended subsidy @50%.	1. MIDH- Integrated Post Harvest Management 2. Crop Cluster Development Project, Haryana

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			2. Collection centers/ packhouse development in different clusters including grading/ packing machines, cold storages, reefer vans, reefer container etc., 90% assistance.	
		Automated packaging lines for fruits with farm code labelling, with packaging material with 100% assistance as per invoice, maximum of INR 15 lakh per project. Similarly, specialized High Reach Material Handling Equipment with admissible cost of INR 17 lakhs per unit, maximum of 2 units.	Specialized Packaging in Cold Chain, Add-on for Controlled atmosphere and Modernization: Automated packaging lines for fruits & vegetables with farm code labelling, with packaging material. 100% of cost as per invoice, maximum INR 15 lakh per project High Reach Material Handling Equipment (MHE): INR 17 lakh per unit, for maximum of 2 units.	MIDH- Technology Induction in Cold Chain, Add-on for CA and Modernization.
6.	Processing Facilities, Freeze Dehydration Unit, Oleoresin Extraction Plant	55% of the project cost as back ended subsidy and 45% may be the Promoter's Contribution. Maximum limit of project cost of INR 10 Crores. This may be availed by FPOs/entrepreneurs/farmers working in Horticulture sector.	1. Credit linked back ended capital investment assistance of 50% of cost. 2. Primary/ Minimal & Food processing Unit- 70% assistance 3. 50% of eligible project cost subject to maximum of INR 10 crore per project 4. @50% of eligible project cost in Himachal Pradesh where Grant will	1. MIDH- Integrated Post Harvest Management 2. Crop Cluster Development Project, Haryana 3. Integrated Cold Chain and Value Addition Infrastructure Scheme of MoFPI

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			be released in two instalments each @50% of grant subject to maximum of INR 5 crores per project.	4. MOFPI: Expansion of Food Processing/ Preservation Capacities (Unit Scheme)
7.	Ripening Chambers	Credit linked back- ended subsidy @55% for maximum of 300 MT per beneficiary for private entrepreneurs and it is 80% assistance for FPOs. Maximum limit of project cost of INR 3 Cr.	1. Credit linked back-ended subsidy @ 50% for maximum of 300 MT per beneficiary @cost norm of INR 1 lakh per MT. 2. 90% assistance to FPOs with INR 3 crore per project	1. MIDH- Integrated Post Harvest Management 2. Crop Cluster Development Project, Haryana
8.	Controlled Atmosphere Storage	Credit linked back- ended subsidy @55% for maximum of 1000 MT per beneficiary for private entrepreneurs and 80% assistance for FPOs. Maximum limit of project cost of INR 7.5 Cr.	Cold Storage Units Type 2 with add on technology for Controlled Atmosphere: Credit linked back-ended subsidy @ 50% for maximum of 300 MT per beneficiary.	MIDH- Integrated Post Harvest Management, NHB
9.	Hitech Markets	DOH in association with HPSAMB may facilitate development of Hi-tech markets and strengthening of existing markets on PPP mode.		
10.	Export cum Distribution Hubs	The incentives for infrastructure under Export hubs which fall in List of Specified category of service activities including Export Oriented Units (EoU) may prevail as per The Himachal Pradesh Industrial Investment Policy, 2019.	Incentives for Micro, Small and Medium Enterprises (MSME) Incentives for Large enterprises Incentives for Anchor Enterprises	Himachal Pradesh Industrial Investment Policy, 2019 Any other later amendment in the policy would be applicable.

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
11.	Material Ropeways	Material ropeways may be promoted with cost norm of INR 18 lakh/km with Credit linked back-ended subsidy @ 50% of capital costs.	Credit linked back-ended subsidy @ 50% of capital costs in Hilly areas with cost norm of INR 15 lakh/km	MIDH-Establishment of Marketing Infrastructure for Horticultural Produce
12.	Transportation	Assistance in Transportation of Fruits as per Operations Green. Thrust should be given to improve connectivity to rural/ remote areas and reduce congestion in urban areas.	Subsidy @ 50 % of the cost for Long Term infrastructure component creation and subsidy maximum @50% cost of Transportation and/ or storage of notified F& V for short term price stabilization measures. Grants in Aid maximum @70% for FPO/ SC/ ST of eligible cost subject to maximum of INR 50 crores per project and similarly 50% of cost for another component.	Operation Greens under Pradhan Mantri Kisan Sampada Yojana provide incentives for transportation and preservation. Pradhan Mantri Gram Sadak yojana
B	**Augmentation of Value Chain including Technology**			
1.	Farmer producer organizations[ii]	Augmentation of Agriculture Infrastructure Fund (AIF), to provide interest subvention of about 6% (i.e., additional 3%) per annum on term loan up to INR 2 crores taken by FPOs for maximum period of 7 years. The applicant needs to apply for AIF first. Upon approval from AIF, remaining amount may be covered through State Government subject to above mentioned limits.	Loans under this financing facility will have interest subvention of 3% per annum up to a limit of INR 2 crore. This subvention will be available for a maximum period of 7 years. In case of loans beyond INR 2 crores, then interest subvention will be limited up to INR 2 crores. The extent and percentage of funding to private entrepreneurs out of the total financing facility may be fixed by the National Monitoring Committee.	Financing facility under 'Agriculture Infrastructure Fund'

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		State to promote 500 new FPOs in Horticulture sector under the purview of policy. Matching equity grant will be provided. A scheme may be formulated for the same.	Equity Grant will be in the form of matching grant up to INR 2,000 per farmer of FPO subject to maximum limit of INR 15.00 lakh fixed per FPO.	Provision for Equity Grant in Formation & Promotion of 10,000 FPO scheme - Government of India.
2.	Establishment/ upgradation of Hitech- Nursery and Tissue culture labs	50 % of the project cost as back ended subsidy and 50% by the promoter's contribution subject to maximum project cost norm of INR 1 Crore/ unit for fruit nurseries Maximum area 4 ha, INR 3 Crore/ unit in case of Citrus. Maximum area 4 ha/beneficiary and INR 2 crores for tissue culture lab and project cost norm of INR 25 lakhs in case of upgradation. All departments and other stakeholders shall adhere to "The Himachal Pradesh Fruit Nurseries Registration and Regulation Act, 2015" for the registration and regulations of fruit nurseries in Himachal Pradesh.	100% to public sector. In case of private sector, the following applies: Hi-tech nursery: credit linked back-ended subsidy @ 40% of cost, subject to a maximum of INR 40 lakh/unit, for a maximum of 4 ha. with minimum 50,000 plants per ha. in case of hi-tech nursery. Upgradation of nursery: 50% of cost, subject to a maximum of INR 5 lakh/unit Upgradation of Tissue culture units: credit linked back ended subsidy @ 50% of cost Setting up of new Tissue Culture Units: credit linked back ended subsidy @ 40% of cost. Each TC unit will produce a minimum of 25 lakh	MIDH- Production of planting material

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			plants/year.	
3.	Production - Ultra/ High Density Plantation	50% of cost for establishment of plantation, with a maximum of INR 5.00 lakh/ha for meeting the expenditure on planting material, cost of drip system, canopy management) on project- based proposal in case of ultra and high- density plantation and for others, MIDH cost norms shall prevail.	As per MIDH scheme for High Density Planting with drip irrigation, there is maximum of INR 0.75 lakh per ha. (50% of cost INR 1.5 lakh per ha.) 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 and 90% in 3rd year, depending upon crops. Additional subsidy is being given by state government to general category 15% and 25% for reserved category. Area limit maximum up to 4 ha.	Department of Horticulture, Gujarat- Scheme for establishment of new garden (Fruit crops)
4.	Achieving improved productivity	To encourage quality production and improved productivity, rewards of about INR 50,000 per farmer and INR 1 lakh per FPO for 5 best farmers and 5 best FPOs in the State be announced who have achieved the highest productivity.		
5.	Crop Insurance	Mukhya Mantri Fasal Bima Yojana (MMFBY) is proposed to cover all horticulture crops/commodities. Weather based Insurance Scheme may be augmented at state level to cover damages from weather/ climate, heat stress management, Insufficient chilling hours and frost management based on estimated yield and using IoT. In case of climatic disaster/calamity	1. Coverage of Food crops (Cereals, Millets and Pulses), Oilseeds, Annual Commercial / Annual Horticultural crops. 2. Financial loss on account of anticipated crop loss resulting from adverse weather conditions relating to rainfall, temperature, wind, humidity	1. Pradhan Mantri Fasal Bima Yojana (PMFBY) 2. Weather Based Crop Insurance Scheme

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		support in pro-rata basis as per evaluation criteria of Government of Himachal Pradesh.		
6.	Climate Change- Protective measures	Hailstorm management: Installation of permanent support structure may be extended for all the horticulture crops.	1. Support farmers in installation of permanent support structure for anti-hail nets. For steel structure, with cost norm of INR 2.4 lakh per ha, 50% assistance to maximum of INR 1.2 lakhs and for Bamboo permanent structure with cost norm of INR 1.2 lakh per ha, INR 60,000 for 1 ha limit for apple.	1. Krishi Utpad Sarankshan (KUSHY)- Government of Himachal Pradesh Anti- hail nets scheme shall prevail, as state is already providing extra 30% share in addition to 50% as per MIDH scheme. Similarly, Mukhya Mantri Khet Sanrakshan Yojna (MMKSY) for solar electric fencing shall prevail.
7.	Integrated Pest and Nutrient Management	50% of cost subject to a maximum of INR 20,000 /ha limited to 2.00 ha/ beneficiary which include pheromone traps, labor cost, cost of nutrient and fertilizers, and cost of pesticides with project cost norm of INR 40,000 per hectare.	30% of cost subject to a maximum of INR 1200/ha limited to 4.00 ha/ beneficiary with cost norm of INR 4000/ ha.	MIDH- Promotion of Integrated Nutrient Management (INM) Integrated Pest Management (IPM) Note: Since labour and other components have increased by almost

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
				50% from 2014, accordingly cost norm has been revised
8.	Product Development for Indigenous Commodities and Value Addition	The fees for filing the patent for innovative products related to horticulture by individual/startup/ MSME/ FPO may be reimbursed up to INR 5 lakhs as financial incentive. The applicant will receive 50% of this reimbursement when they file and the remaining after the grant of patent related to horticulture.	The cost of filing and processing of patent application will be reimbursed to the incubated startup companies subject to a limit of INR 2 lakh per Indian patent awarded or actual cost incurred, whichever is less. For awarded foreign patents on a single subject matter, up to INR 10 lakh or actual cost incurred, whichever is less would be reimbursed. The reimbursement will be done in 2 stages, i.e., 75% after the patent is filed and the balance 25% after the patent is granted.	Himachal startup Policy- Chief Minister's Startup/ Innovation Projects/ New Industries Scheme. Incentives for foreign patent award may remain same.
9.	Good Agricultural Practices	60% of cost subject to maximum of INR 40,000/ha with maximum of 4 ha/beneficiary	50% of cost to maximum of INR 5000 per ha. to limit of 4 ha per beneficiary with cost norm of INR 10000 per ha.	MIDH- Certification for Good Agricultural Practices (GAP) including infrastructure.
10.	Organic Farming	One time assistance of INR 10,000 per ha for branding and promotion of organic produce in addition to existing Paramparagat Krishi Vikas Yojana (PKVY). .	Financial assistance of Rs 50000/ha/3 years is provided for cluster formation, capacity building, incentive for inputs, value addition and marketing. Out of it, Rs	Paramparagat Krishi Vikas Yojana (PKVY)

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			31000/ ha / 3 years is provided for preparation / procurement of organic inputs such as bio/organic fertilisers, biopesticides, seeds etc. through DBT and Rs 8800/ ha/ 3 years is provided for value addition and marketing that includes post harvest management practices like storage.	
11.	Natural Farming	One time assistance of Rs 2500 per ha (additional INR 500) may be provided to farmers as DBT for the purchase of liquid manure drums and botanical extract preparation containers. The incentives under Prakritik Kheti Khushal Kisan Yojana by Department of Agriculture, Himachal Pradesh shall prevail.	1. One time assistance of Rs 2000 per ha will be provided to farmers as DBT for the purchase of liquid manure drums and botanical extract preparation containers. 2. 80% subsidy (maximum Rs. 8000 per natural farming farmer) for changing the cowsheds to make the cowsheds firm and collect cow urine and dung. 75% subsidy on drums (maximum 750/- per drum and maximum 3 drums/for natural farming farmer family) for making inputs used in natural farming to farmers 50% gratuity on indigenous cow and maximum gratuity of Rs 25000/- and 5 thousand extra is being given for its transportation.	1. Bhartiya Prakritik Krishi Padhati- Department of Agriculture, Government of India 2. Prakritik Kheti Khushal Kisan Yojana- Department of Agriculture, Himachal Pradesh.

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			Assistance up to Rs. 10,000/- to open natural farming resource reserves in each village for the supply of inputs used in natural farming.	
12.	Packaging Material	With respect to packaging material, one time reimbursement @25% of packaging material cost as per actual amount incurred in invoice subject to maximum invoice amount of INR 25,000 per beneficiary. The same incentive may also be applicable for bagging of fruits. The bio- degradable material packaging and natural materials (which are otherwise waste material) like Grass, Bamboo etc., shall be promoted. Any new packaging material invention may be timely evaluated and tested.		
13.	Green Technology[iii]	Incentive of INR 20,000 per Individual/FPO working in Horticulture produce/products.		
14.	Marketing	Exemption of 0.25% of market fee for traders who undertake transactions through end- to- end online trading process in eNAM. Top 3 farmers and 1 FPO performing trade through eNAM may be awarded a cash prize of about INR 50,000 (in the ratio of 5:3:2) for Farmer and INR 1 lakh forFPO respectively in each district every year.	1. Exemption of Market Fee @ 0.25 % and collecting only 0.75% if trader/CAs undertake market transactions from end to- end trading process in e-NAM programs for a period of 1 year. 2. State Level: Annual cash Prize of One Lakh each to best 1 farmer & best 1 trader State Level: Fifty Thousand (Two Prizes – 2 farmers & 2 traders) Division Level: Annual cash Prize of Fifty Thousand each to best1	1. e-NAM Incentives in Telangana 2. e-NAM Incentives in Rajasthan 3. Market Intervention Scheme (MIS) for procurement

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		Market Intervention Scheme (MIS) may be implemented for low grades and Fair Average Quality (FAQ) for all horticulture crops.	farmer & best 1 trader Division Level: Twenty- Five Thousand (Two Prizes - 2 farmers & 2 traders) APMC Level: Annual cash Prize of Thirty Thousand each to best1 farmer & best 1 trader APMC Level: Fifteen Thousand (Two Prizes - 2 farmers & 2 traders) 3. Apples may be procured in 35 kilo bags with 2.5% more fruits, price was set at INR 9.50 per kg, the handling charges will be INR 2.75 per kg and assumed sale realization will be INR 3.50 per kg.	
15.	Horticulture Mechanization	All eligible beneficiaries under each of the components may be given 60% assistance to support horticulture mechanization, subject to existing cost norms as per Sub-Mission on Agricultural Mechanization (SMAM). Custom Hiring Centers (CHCs) on PPP mode may be promoted which may have relevant machinery including Crates, CFB boxes, harvest	The various components (3- 8) in Sub-Mission on Agricultural Mechanization (SMAM) include the following which provide maximum of 50% assistance to SC, ST, Small & Marginal farmers, Women and NE States beneficiary and similarly 40% for others. • Financial Assistance for Procurement of Agriculture	Sub Mission on Agricultural Mechanization (SMAM)- Department of Agriculture, Government of India. Component 1 and 2

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		equipment/ tools etc.,	Machinery and Equipment • Establish Farm Machinery Banks for Custom Hiring • Establish Hi-Tech, High Productive Equipment Hub for Custom Hiring • Promotion of Farm Mechanization in Selected Village • Financial Assistance for Promotion of Mechanized Operations/ hectare Carried out Through Custom Hiring Centers • Promotion of Farm Machinery and Equipment	under SMAM in which Central Government provide 100% assistance shall prevail.
16.	Drones	For purchase of drones, 60% subsidy or maximum of INR 5 lakh subsidies shall be provided for all horticulture related farmers, FPOs etc., In addition, Himachal Pradesh drone policy 2022 which focus, and support drone enabled governance in sectors **including Horticulture,** Drone flying training schools, integration with	The government provides 50% or maximum INR 5 lakh subsidy to SC-ST, small and marginal, women and farmers of north-eastern states to buy drones. For other farmers, financial assistance will be given up to 40% or maximum INR 4 lakh. @ 100 % cost of drones together with the contingent expenditure is extended under Sub-Mission on Agricultural Mechanization (SMAM)	Sub-Mission on Agricultural Mechanization (SMAM) and Kisan Drones- Department of Agriculture, Government of India Himachal Pradesh Drone Policy, 2022

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		National Education Policy and Start-up policy etc., Drone Mahostav and Melas shall prevail.	to the Farm Machinery Training & Testing Institutes (FMTTI), Institutions of Indian Council of Agricultural Research (ICAR), Krishi Vigyan Kendra (KVK) and State Agricultural Universities (SAUs) for its demonstration on the farmer's fields. Farmers Producers Organizations (FPOs) are given grants @ 75% for the purchase of drones for its demonstration on the farmers' fields.	by Department of Information Technology, Government of Himachal Pradesh
17.	IoT driven Value chain	Internet of Things in Horticulture Production, Precision Farming, Irrigation for precise nutrient management, spray schedule management and traceability of produce during marketing and latest technologies including drones, nano Technology for precise foliar application of micro- nutrients like Zn, B, Mo and Mn in horticulture crops and Anti- bacterial coating, anti- fungal coating, ethylene absorbers, impregnation in packaging material to enhance shelf life in packaging.		
C	**Capacity building and Institutional Strengthening**			
1.	The "Kshamta se Samruddhi" program for department of horticulture may be implemented which would be responsible for the overall capacity building related to horticulture in the state. A professional agency would be hired to do gap analysis and further execution of the project. This will be monitored at state level. CoE will be linked with the project.			
2.	Project Consultancy and Management Unit (PCMU)	A Project Consultancy and Management Unit may be set up at Department of Horticulture, HP level to handhold the department, monitor effective implementation of the policy. The PCMU may coordinate with relevant stakeholders and update government from time to time regarding implementation of the policy. PCMU may also suggest mid-course correction for effective implementation, Transaction support for onboarding professional agencies, Post transaction monitoring, development of monitoring dashboard etc.,		

<table>
<tr><th>S. No.</th><th>Component[i]</th><th>Proposed Incentives</th><th>Reference Incentive</th><th>Reference document</th></tr>
<tr><td></td><td></td><td colspan="3">A professional agency may be hired through a transparent bidding process/NICSI rates to set up PCMU with Department of Horticulture, HP.

There will be dedicated professional agencies that may be on boarded with the help of PCMU in the following fields such as Training and Capacity building, Export facilitation, Marketing and Branding. PCMU may assist Department of Horticulture in monitoring of these agencies.

The broad responsibilities of these professional agencies may be as follows:

i. Training and Capacity building: Execute the overall capacity building programs related to “Kshamta se Samruddhi” program, including preparation of training plan and implementation of programs at ground level with coordination from department and universities, deployment of Horticulture Extension Functionaries. This may also collaborate with Universities/ Institutions for demonstration of new technologies to conduct regular trainings/ workshops.

ii. Export facilitation: To work closely with department and handhold stakeholders like FPOs, farmers, exporters and facilitate exports to identified export destinations, Information dissemination on various schemes and benefits available for export promotion and required support in availing, creating linkages.

iii. Marketing and Branding: This may promote “Brand Himachal” and assist in maintenance of adherence to quality standards and follow the standard packaging practices by stakeholders, organizing marketing campaigns in both domestic and international locations.</td></tr>
<tr><td>3.</td><td>Vocational Courses</td><td>The Government may encourage students to pursue approved courses on FPOs or any of the vocational courses and their fees to the extent of INR 10,000/- per year may be reimbursed by the Government.</td><td>The Government will encourage students to pursue approved courses on FPOs and their fees to the extent of INR 10000/- per year will be reimbursed by the Government.</td><td>Odisha Farmer Producer Organizations (FPO) Policy, 2018</td></tr>
<tr><td>4.</td><td>Horticulture University/College/Institute</td><td colspan="3">Department of Horticulture may propose to augmentation of existing universities or creation of new universities/colleges/institutes etc.</td></tr>
</table>

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
5.	Human Resources	Augmentation of Technical Human resources within the Department of Horticulture to implement the schemes/projects effectively.		
6.	Incubation Center	Establishment of Incubation center by State University of Horticulture and Forestry/ CoE - Horticulture. Incentives as per Himachal Pradesh startup policy. Promote entrepreneurs and start- ups to provide innovative solutions across value chain.	financial assistance will be provided for three years to the selected institutions for setting up the incubator and other activities. The maximum financial assistance will be provided @ INR 30 lakhs per incubator per year up to a period of three years.	Himachal Pradesh startup policy
7.	Centre of Excellences	Centre of excellence each for floriculture, mushroom, bee keeping, plant genetic resources/ germplasm conservation, potential fruit crops, high tech Nursery for demonstration and training.	100% of cost to public sector. This can be established through bi-lateral co-operation. Maximum permissible cost of INR 1000.00 lakh/ center	MIDH- Center of Excellences
D	**Research and Development**			
1.	Research and Innovation Hub	To actively carry out research in both production and post-harvest technology as per farmers need and standardize the same for the benefit of farmers and local community. Private body to be included. To be housed in State Agricultural Universities (SAUs)/such institutes. • **Research on development of environmentally friendly protocols like** bio- enhancers for micro- organisms, Bio- fertilizers, Bio pesticides, Organic farming & Natural farming, Integrated pest management, Integrated nutrient management. • **Research on Hitech Technologies** including Genetic Engineering, Hydroponic, Aeroponic, Post- harvest technology, Machinery suitable for harvesting in high density plantation in hilly terrain • Design of energy efficient produce evacuation solutions including well ventilated trucks for short duration haulage etc., • Development of active packaging solutions and usage of natural products like grass,		

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		bamboo in packaging. • Formulation of specific export shipment and logistics protocols for fruit crops • Development of harvest and post- harvest protocols for horticulture crops including suggested intercrops for various fruits. • New technology adoption in the state for Hail control systems like Anti- hail guns, Agro-Photovoltaic Anti hail systems / solar energy anti-hail nets etc., • Collaboration of either DoH or Universities with International bodies. Possibility of in-house consultancy wing may be explored.		
E	**Alternative Interventions**			
1.	Single Window Clearance	A single window system for registration, submission of applications for incentives, online trade license, approvals from other line departments for farmers, FPOs, promoters, and other beneficiaries across the State may be established.	The Single Window Clearance System by Department of Agriculture & Farmers' empowerment may be made applicable to FPOs for issue of licenses for trade in inputs, production, processing, distribution of seeds and saplings.	Odisha Farmer Producer Organizations (FPO) Policy, 2018
2.	**Horticulture led Rural Resurgence**			
	Setting up of Accommodation Facilities	DOH to provide Viability Gap Funding to setup accommodation facility for Horticulture tourism project ranging from INR 50 Lakhs to INR 5 Crores depending on the size of accommodation facility.	In case the demand for Viability Gap Funding for Eligible Tourism Unit specified above is equal to or up to INR 50 lakhs would be approved by Director, Tourism. In case the demand for Viability Gap Funding for Eligible Tourism Unit specified above is more than INR 50 lakhs and is equal to or up to INR 5	Himachal Pradesh Tourism Policy-2019

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			Crore would be approved by Hon'ble Minister of Tourism of the State In case the demand for Viability Gap Funding for Eligible Tourism Unit specified above is more than INR 5 crores, same would be approved by State Cabinet.	
	Support in Infrastructure/Homestays development, Facilitation in clearances/ necessary Approvals	DOH may assist in financial support for development of approach road, construction of water pipe till the proposed Horticulture Tourism Cluster/orchards.	State Government would provide financial support in construction/ development of approach road to all Eligible Tourism Units subject to maximum of 15% of the total cost of construction of approach road with maximum ceiling of INR 25 lakhs. The minimum construction cost of approach road should be INR 5 lakhs in order to be eligible for approach road infrastructure development support. State Government would provide financial support in construction/ laying of water pipeline to all Eligible Tourism Units subject to maximum of 15% of the total cost of construction of construction/ laying cost with maximum ceiling of INR 50 lakhs. The minimum construction cost of laying of water pipeline should be INR 5 lakhs in order to be eligible for pipeline infrastructure	Himachal Pradesh Tourism Policy-2019

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
			development support.	
	Interest Subsidy on loans	DOH may provide interest subsidy on the loan taken from Banks, State Financial Corporations, or any State level financial institutions subject to a maximum of INR 25 Lakh for a period of five years.	New Tourism Projects and Expansion Tourism Projects shall be eligible to get interest subsidy at 5% per annum on the term loan taken on the fixed capital investment for the Tourism Project, subject to a maximum of INR 25 Lakh for a period of five years. The interest subsidy shall not exceed INR 7.5 Lakh per annum for the Tourism Project and shall be provided only for timely repayment of loan instalment along with interest.	Karnataka Tourism Policy 2020-26.
	Marketing and promotion	DOH in coordination with Tourism department may support in Marketing and Promotion of Horticulture Tourism Clusters/Orchards, the department may provide financial assistance of INR 5 lakhs per cluster in a year to organize any festival or events in the premises for Tourism Service Providers including Home-stays etc.,	The department will provide financial assistance up to INR 10 Lakhs (max. 20 % of the total cost of the event) and up to one event/ year to a tourism unit/ company/ firm for organizing a Tourism Mega event in the state.	Himachal Pradesh Tourism Policy 2019
3.	Apiculture	50% of cost for all components including production of bee colonies by breeder, Honey- bee colony, Bee-hives, Equipment. Promotion of fruit, flower-based honey. In addition to natural honey,	Production of bee colonies by breeder- 40% of cost for producing min of 2000 colonies/ year, for maximum permissible cost of 10 lakh Honey- bee colony- 40% of cost limited to 50 colonies/ beneficiary,	MIDH- Beekeeping Mukhya Mantri Madhu Vikas Yojna

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		value addition products/ by products including Bee wax, Propolis, Pollen, Royal Jelly, Bee Venom, may be promoted. Quality testing labs with Nuclear Magnetic Resonance Technique facility (NMR). 50% assistance for migration of Honey- bees up to INR 2 lakhs per Farmer/individual. Promotion of Bee flora for dry season should be promoted. Integrated Beekeeping Development Centres shall be developed in different zones in Himachal Pradesh. Other incentives as per Mukhya Mantri Madhu Vikas Yojna shall prevail.	INR 2000/colony of 8 frames Bee- hives- 40% of cost limited to 50 colonies / beneficiary, INR 2000/ hive Equipment- 40% of the cost limited to one set per beneficiary, INR 20,000/set.	
4.	Mushroom	The maximum permissible cost of INR 1.5 crores/ unit, INR 40 lakh/ unit and INR 25 lakh/ unit for automated production unit, spawn making unit and compost unit respectively in which about 50% of the cost for private sector as credit linked subsidy. This is applicable all varieties of mushrooms including specialty	The maximum permissible cost of Production unit, Spawn making unit, composite making unit is INR 20 lakh/ unit, 15 lakh/unit, 20 lakh/ unit respectively, in which about 40% of the cost for private sector as credit linked subsidy.	MIDH- Mushroom Himachal Khumb Vikas Yojna

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		mushrooms. In addition, production of specialty mushrooms like medicinal mushrooms may be promoted.		
5.	Floriculture	• Establishment of export- oriented Floriculture parks. • Tax exemption on state GST as per policy shall be applicable for Shade net house and polyhouse as well. • Speciality flowers shall be promoted and incentivised. • A separate pavilion shall be provided in Ghazipur mandi. • Himachal Pushp Kranti Yojana shall prevail.	**<u>Protected Cultivation:</u>** **Green House structure:** 85% of cost for a maximum area of 4000 sq.m. per beneficiary for each of Fan & Pad system and naturally ventilated system. **Shade Net House:** 50% to 80% support for Tubular structure, Plastic tunnels, walk in tunnels, cost of planting material & cultivation of Carnation & Gerbera under poly house/ shade net house, cost of planting material & cultivation of Rose and lilium under poly house/ shade net house. **<u>Open Field Cultivation:</u>** Flowers (for a maximum of 2 ha per beneficiary)- 50% of cost per beneficiary for each of cut flowers, Bulbous flowers, loose flowers.	Himachal Pushp Kranti Yojana
6.	Health and Nutrition	Promotion of integration of horticulture with health and nutrition • Integration of horticulture produce in mid-day meal scheme. Flowchart with nutritional data can be circulated in anganwadi and nutrition and food security teaching should be made mandatory. • Observing days like "Fruits day" to spread the theme of "Horticulture-as nutritional crops" • Nutritional gardens with various fruit trees will be promoted along with homestay facilities		

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
7.	Initiatives with other line departments	Department of Horticulture may be given priority to related activities in other state departments in Himachal Pradesh like Public Work Department (PWD), Himachal Pradesh Tourism Development Corporation (HPTDC), Department of AYUSH, Jal Shakti Vibhag, Department of MSME, Department of Information Technology etc. as well as Central Ministries.		
8.	Introduction of new and improved germplasm and quality planting material	Appropriate planting material and rootstock are the backbone to achieve higher productivity in horticulture crops. Immediate measures should be taken for adequate availability of planting material of latest varieties to the farmers. Similarly, looking into the climatic conditions, stress tolerant root stock (for specific conditions) should be made available to farmers.		
9.	Standards for Domestic and Export Market	GLOBALGAP (EUREPGAP) Standards is recommended for trading in export market for ease of doing business. Measures can be adopted by authority to do audits for checking such certification are done in appropriate manner to avoid any kind of risk and fraudulent practices.		
10.	Integration of Infrastructure	Revamping of existing production infrastructure for instance poly houses, green houses to cultivate high value crops like strawberry		
11.	Carbon markets	Implementation of carbon marketplace concept to encourage farmers follow environmentally beneficial practices.		
12.	Financial Institutions	DoH may work with Financial Institutions, Non- Banking Financial Companies, Banks, Fin tech companies to introduce innovative financial solutions to provide credit services to farmers/ FPOs and increase digital payments. A challenge Fund may be created where NBFCs/Financial Institutions may be called with their innovative financial solutions to support farmers similar to Assam Challenge Fund.		
13.	Weather related information dissemination	Automated Weather Forecasting systems should be used for forecasting accurate information at least 15 days in advance and disseminate this information to FPOs, so that they can take appropriate remedial measures against hailstorms, frost, temperature extremities etc.,		
14.	Rural Advisory Services	To share the technical knowledge, a system of community radio is important to deliver advisory		

S. No.	Component[i]	Proposed Incentives	Reference Incentive	Reference document
		services and sharing of knowledge among community members.		
15.	Gender inclusion	For promoting more women participation **extra incentives** (1% extra) should be provided to the collectives who have a greater number of women members and women in the leadership roles. It is imperative that at least 30% women should be benefited from above schemes.		
16.	Electricity	Agriculture electricity connections may be given to horticulture including mushroom production units.		
17.	Registration and stamp duty incentives	50% Exemption from payment of Stamp duty for Lease of land/ shed/ buildings and mortgages and hypothecations related to horticulture.		
18.	Tax holiday	State GST exemption for 5 years for any services rendered in horticulture sector including sale & purchase of horticulture produce or products.		
19.	Self- Regulation	As the government is gearing towards a regime of self-compliance it is suggested that state should encourage FPOs to voluntary adopt all requirements for setting up and the operation of GAP, organic production, processing units licenses and regulations, building regulations, products & standards, packaging & labelling, environment and pollution control and these should be regularly monitored by the members.		

Note: The above incentives are subject to change with respect to any revisions of respective policies/ schemes.

A. Infrastructure Development

The assistance that may be provided for establishment of various infrastructure facilities related to horticulture sector has been discussed below:

The infrastructure covered is as follows:

- Irrigation
- Integrated Laboratory for Plant Tissue Analysis
- Input Shops
- Collection Centers
- Packhouses
- Processing Facilities, Freeze Dehydration Unit, Oleoresin Extraction Plant
- Ripening Chambers
- Controlled Atmosphere Storage
- Hitech Markets
- Export cum Distribution Hubs
- Material Ropeways
- Transportation

1. Irrigation

Dedicated intervention to support irrigation in Horticulture crops is of utmost importance, as currently irrigation is mostly concentrated in agriculture crops. As per PMKSY Per Drop More Crop, assistance is being provided at 55% of the cost for small and marginal farmers and 45% for other farmers.

To encourage irrigation in high and ultra-high-density plantations, it is proposed to provide 80% assistance for both small and marginal farmers and other farmers for establishment of irrigation infrastructure in horticulture crop orchards, subject to cost norms of existing PMKSY Per Drop More Crop. In addition, it is proposed to provide 100% assistance for establishment of Community based irrigation system in convergence with PMKSY.

2. Integrated laboratory with Plant Tissue Analysis

Integrated laboratory with Plant Tissue Analysis labs may include soil, water, Maximum Residual Limit analysis (MRL), Heavy Metal Analysis labs. Currently, as per MIDH scheme under Promotion of Integrated Nutrient Management (INM) and Integrated Pest Management (IPM), assistance is being provided at 100% to public sector and 50% to private sector for Plant Tissue analysis lab with project cost norm of INR 25 lakhs.

It is suggested to establish one Integrated laboratory in every district at 100% assistance to public sector and 60% in case of Private sector, subject to maximum project cost norm of INR 2 crore/ unit. The major equipment in such facility is Soil Pycnometer, Atomic Absorption Spectroscopy (AAS), Bio Oxygen Demand (BOD) Incubator with humidity control- Fully Automatic, Humidity Oven, Horizontal laminar flow, Compound microscope trinocular, Digital weighing balance, Stereo binocular microscope, Autoclave (vertical), Spectrophotometer.

3. Input Shops

An input shop is a small enterprise which aims to facilitate access to inputs for farmers and offer local services. These input shops may provide fertilizers, pesticides, common facility center for packaging material, biofertilizers, equipment for harvesting, crates, harvesting bags etc. They can also rent out the equipment based on service fee.

It is encouraged to establish these facilities by FPOs and private entrepreneurs. It is proposed to provide back ended subsidy of 80% of the project cost for FPOs and 50% in case of private players with maximum project cost norm of INR 10 lakhs.

4. Collection Centers

Collection centers act as aggregation centers and producers can take advantage of its minimal process. It will also act as service centers and cater to other produce of the area. Development of collection centers close to the production clusters will give opportunities to both wholesalers/ traders and producers for negotiation and marketing while reducing the wastage.

Currently, as part of MIDH scheme under establishment of functional infrastructure, Credit linked back-ended subsidy at 55% for establishment of collection, sorting/ grading, packing units with cost norm of 15 lakh is being provided per beneficiary. As per Crop Cluster Development Project in Haryana, 90% assistance is being provided for Collection centers/ packhouse development in different clusters including grading/ packing machines, cold storages, reefer vans, reefer container etc.,

Thus, it is proposed to provide 80% of the project cost as back ended subsidy with maximum limit of project cost of INR 30 Lakhs.

5. Packhouses

Packhouses may have facilities like weighing, sorting, weigh grader, packing, storage, waxing, labelling, quality testing laboratory, reefer vans etc., It is also encouraged to establish automated packaging lines or specialized High Reach Material Handling equipment in packhouses.

Currently, as per MIDH scheme under Integrated Post Harvest Management, assistance is being provided at 50% of the capital cost with project cost norm of INR 50.00 lakh per unit. As per Crop Cluster Development Project in Haryana, 90% assistance is being provided for Collection centers/ packhouse development in different clusters including grading/ packing machines, cold storages, reefer vans, reefer container etc.,

There is an assistance of INR 25.00 lakh / unit with capacity of 6 MT with Credit linked back-ended subsidy @50% for Pre- cooling unit. INR 15.00 lakh/ unit of 30 MT capacity with Credit linked back-ended subsidy @50% for Cold room staging. INR 26.00 lakh for 9 MT, and prorata basis for lesser capacity, but not below 4 MT with Credit linked back-ended subsidy @50%.

Thus, it is proposed to provide 55% of the project cost as back ended subsidy with maximum limit of project cost of INR 4 Crores.

Similarly, in MIDH scheme under Technology Induction in Cold Chain, Add-on for CA and Modernization, the following assistance is being provided and the same shall be applicable for its installation.

- Specialized Packaging in Cold Chain, Add-on for Controlled atmosphere and Modernization: Automated packaging lines for fruits & vegetables with farm code labelling, with packaging material. 100% of cost as per invoice, maximum INR 15 lakh per project

- High Reach Material Handling Equipment (MHE): INR 17 lakhs per unit, for maximum of 2 units.

6. Processing Facilities, Freeze Dehydration Unit, Oleoresin Extraction Plant

Aseptic processing for pulp, juice, jam, jelly sauces and canned fruits are important for value addition of Horticulture produce. The processing facilities may include fruits washing machine, conveyors, Screw Feeder, Twin Pulper, Aseptic processing line, Autoclave etc.,

Freeze drying is one of the safest methods to dehydrate the horticulture crops and preserve their nutritional standards for a long time. The entire fruit freeze-drying process is automatically run, after the freeze-drying machine technical process program is set. The dry material processed by the fruit freeze-drying machine needs to meet the standard of crispy and not hard, smooth, and not collapsed, not discolored, not destroying nutrients, and good rehydration standards. The large-scale freeze-drying machine production line is a standardized, automated, clean, and energy-saving line as per the requirements of the industry. As the drying is done at low temperature the quality and nutrients of the product is maintained.

Marigold Oleoresin Extraction Unit is required for extraction of natural pigment, oleoresin and lutein from Marigold flowers. Lutein has many advantages being non-toxic, non-degradable due to oxidative resistance also providing many health benefits to human being preventing free radical damage.

Currently, processing facilities are being developed under various schemes including MIDH- Integrated Post Harvest Management (Credit linked back ended capital investment assistance of 50% of cost), Crop Cluster Development Project in Haryana (70% assistance for Primary/ Minimal & Food processing Unit), Integrated Cold Chain and Value Addition Infrastructure Scheme of MoFPI (50% of eligible project cost subject to maximum of INR 10 crore per project) and Expansion of Food Processing/ Preservation Capacities Scheme of MoFPI (50% of eligible project cost in Himachal Pradesh to maximum of INR 5 crores per project).

Thus, it is proposed to provide 55% of the project cost as back ended subsidy. Maximum limit of project cost of INR 10 Crores. This may be availed by FPOs/ entrepreneurs/ farmers working in Horticulture sector.

7. Ripening Chambers

Ripening chambers are usually equipped with humidity, temperature controllers and air circulation systems for ripening of fruits (especially for Mango, Banana, Papaya, Pear) through the use of ethylene gas.

Currently, credit linked back-ended subsidy at 50% of cost for maximum of 300 MT per beneficiary with project cost norm of INR 1 lakh per MT is being provided as per MIDH scheme under Integrated Post Harvest Management. 90% assistance to FPOs with INR 3 crore per project cost limit is being provided under Crop Cluster Development Project in Haryana.

Thus, it is proposed to provide credit linked back- ended subsidy at 55% for maximum of 300 MT per beneficiary for private entrepreneurs and 80% assistance for FPOs with maximum limit of project cost of INR 3 Cr.

8. Controlled Atmosphere Storage

Controlled-atmosphere storage facilities in preserving the quality of the fruits and increase shelf life. Currently, as per MIDH scheme under Integrated Post Harvest Management, credit linked back-ended subsidy at 50% for maximum of 300 MT per beneficiary is being provided for Cold Storage Units Type 2 with add on technology for Controlled Atmosphere.

Thus, it is proposed to provide credit linked back- ended subsidy at 50% for maximum of 1000 MT per beneficiary for private entrepreneurs and 80% assistance for FPOs with maximum limit of project cost of INR 7.5 Cr.

9. Hitech Markets

A High-Tech or smart markets cover entire marketing area of mandi and provides for intra & inter- state trading facilities including farmgate purchases augmented with state-of-the-art marketing infrastructures like online trade facilitation, primary processing, quality assaying, storage, online payment, transportation, and market intelligence for optimum price realization of horticulture produce.

DoH in association with HPSAMB may facilitate development of Hi- tech markets and strengthening of existing markets on PPP mode.

10. Export cum Distribution Hubs

The facilities in Export cum Distribution Hubs may include short term cold storage units, loading and unloading areas, weighing facility, refer vans etc., and these shall be established at locations with easy accessibility to maximum places.

As per Himachal Pradesh Industrial Investment Policy, 2019, there are various incentives for Export Oriented Units (EoU) including Incentives for Micro, Small and Medium Enterprises (MSME), Incentives for Large enterprises, Incentives for Anchor Enterprises. Since, Export hubs fall in List of Specified category of Export Oriented Units (EoU), the incentives shall prevail along with any other later amendments in the policy.

11. Material Ropeways

Due to the difficult terrain, it is difficult for people living in the remote hills/mountainous areas especially for transportation of crops/ goods to market and crossing of river without bridge can be exhausting and dangerous. When it rains, or there’s a landslide, it’s completely impossible to take goods to market. An alternative means of transportation like material ropeway can provide a sustainable solution for this.

As per MIDH under Establishment of Marketing Infrastructure for Horticultural Produce, credit linked back-ended subsidy at 50% of capital costs in Hilly areas with cost norm of INR 15 lakh/km is being provided.

It is proposed to promote Material ropeways with Credit linked back-ended subsidy @ 50% of capital costs with project cost norm of INR 18 lakh/km.

12. Transportation

Assistance in transportation of fruits shall be applicable as per Operations Green under Pradhan Mantri Kisan SAMPADA Yojana which provide incentives for transportation and preservation. It includes provision of 50% subsidy of the cost for Long Term infrastructure component creation and subsidy maximum at 50% cost of Transportation and/ or storage of notified F& V for short term price stabilization measures. There is also provision of Grants in Aid at maximum 70% for FPO/ SC/ ST of eligible cost subject to maximum of INR 50 crores per project and similarly 50% of cost for another component.

In addition, thrust should be given to improve connectivity to rural/ remote areas and reduce congestion in urban areas.

B. Augmentation of Value Chain including Technology

1. Farmer Producer Organizations

The definition of FPO as per Central Sector Scheme- "Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)" shall prevail which include farmer-producers' organization incorporated/ registered either under Part IXA of Companies Act or under Co-operative Societies Act of the concerned States. However, the incentives under this policy shall be applicable only for FPOs handling Horticulture Produce.

As per financing facility under 'Agriculture Infrastructure Fund', there is interest subvention of 3% per annum up to a limit of INR 2 crore for loans for a maximum period of 7 years. In case of loans beyond INR 2 crores, then interest subvention will be limited up to INR 2 crores.

Augmentation of Agriculture Infrastructure Fund (AIF) is proposed to provide interest subvention of about 6% (i.e., additional 3%) per annum on term loan up to INR 2 crores taken by FPOs for maximum period of 7 years. The applicant needs to apply for AIF first. Upon approval from AIF, remaining amount may be covered through State Government subject to above mentioned limits.

Currently, provision for Equity Grant under the center sector scheme "Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)" is active in the state. Equity Grant in the form of matching grant up to INR 2,000 per farmer of FPO is being provided subject to maximum limit of INR 15 lakh fixed per FPO.

It is proposed to promote 500 new FPOs in Horticulture sector under the purview of policy. Matching equity grant may be provided and a scheme may be formulated for the same.

2. Establishment/ upgradation of Nursery and Tissue culture labs

Establishment/ upgradation of Nursery and Tissue culture labs are important to meet the requirement of planting material (for bringing additional area under improved varieties of horticultural crops and for rejuvenation for old/senile plantations).

As part of MIDH scheme, under production of planting material there is an assistance of 100% to public sector. In case of private sector:

- Hi-tech nursery: Credit linked back-ended subsidy @ 40% of cost, subject to a maximum of INR 40 lakh/unit, for a maximum of 4 ha. with minimum 50,000 plants per ha. in case of hi-tech nursery.

- Upgradation of nursery: 50% of cost, subject to a maximum of INR 5 lakh/unit

- Upgradation of Tissue culture units: Credit linked back ended subsidy @ 50% of cost

- Setting up of new Tissue Culture Units: Credit linked back ended subsidy @ 40% of cost. Each TC unit will produce a minimum of 25 lakh plants/year.

It is proposed to provide 50 % of the project cost as back ended subsidy and 50% by the promoter's contribution subject to maximum project cost norm of INR 1 Crore/ unit for fruit nurseries Maximum area 4 ha, INR 3 Crore/ unit in case of Citrus Maximum area 4 ha/beneficiary and INR 2 crores for tissue culture lab, and project cost norm of INR 25 lakhs in case of upgradation.

It is mandatory that all departments and other stakeholders should adhere to "The Himachal Pradesh Fruit Nurseries Registration and Regulation Act, 2015" for the registration and regulations of fruit nurseries in Himachal Pradesh.

3. Ultra / High Density Plantation system

As per MIDH scheme for High density planting with drip irrigation, there is maximum of INR 0.75 lakh per ha. (50% of cost INR 1.5 lakh per ha.) 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 and 90% in 3rd year, depending upon crops. In addition, the Department of Horticulture, Government of Gujarat is providing additional subsidy to general category 15% and 25% for reserved category with area limit maximum up to 4 ha.

Similarly, for promotion of Ultra / High Density plantations, it is proposed to give 50% of cost, for establishment of plantation with a maximum of INR 5.00 lakh/ha.) for meeting the expenditure on planting material, cost of drip system, canopy management) on project based proposal in case of ultra and high- density plantation and for others, MIDH cost norms shall prevail .

4. Achieving improved productivity

To encourage quality production and improved productivity, rewards of about INR 50,000 per farmer and INR 1 lakh per FPO for 5 best farmers and 5 best FPOs in the State be announced who have achieved the highest productivity. The detailed terms and conditions may be formulated for its implementation.

5. Crop Insurance

The schemes related to insurance are existing Pradhan Mantri Fasal Bima Yojana (PMFBY) and Weather Based Crop Insurance Scheme. PMFBY covers Food crops (Cereals, Millets and Pulses), Oilseeds, annual commercial / annual horticultural crops etc., and only for damages limited to adverse conditions of weather parameters like rainfall, temperature, frost, humidity etc., However, most of the horticulture fruit crops are perennial in nature and risk varies every year.

Thus, it is proposed to implement new scheme named Mukhya Mantri Fasal Bima Yojana (MMFBY) to cover all horticulture crops/ commodities in the state. Similarly, Weather based Insurance Scheme may be augmented at state level to cover damages from weather/ climate, heat stress management, Insufficient chilling hours and frost management based on estimated yield and using IoT. In case of climatic disaster/calamity support in pro-rata basis as per evaluation criteria of Government of Himachal Pradesh.

The detailed guidelines may be formulated where the sum insured, and premiums can be calculated based on age of plant and its corresponding yield.

6. Climate Change- Protective measures

The major problems envisaged with climate change are frequent hailstorms, increasing temperature, lack of chilling hours and frequent frost which require proper management through different measures.

In case of Hailstorm Management, at present, back ended subsidy to the farmers for purchase of Anti Hail nets and installation of permanent support structure in Apple is being provided by the Central and State Government schemes respectively. As Department of Horticulture is already providing extra 30% share in addition to 50% as per MIDH scheme, it is suggested that the same scheme is followed. Similarly, Mukhya Mantri Khet Sanrakshan Yojna (MMKSY) shall prevail for fencing.

Department of Horticulture, Government of Himachal Pradesh is supporting farmers in installation of permanent support structure for anti-hail nets, only for apple under Krishi Utpad Sarankshan (KUSHY). For steel structure, with cost norm of INR 2.4 lakh per ha, 50% assistance to maximum of INR 1.2 lakhs and for Bamboo permanent structure with cost norm of INR 1.2 lakh per ha, INR 60,000 for 1 ha limit for apple is being provided. Thus, it is proposed to extend the similar support for all horticulture crops for installation of permanent support structure.

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7. Integrated Pest and Nutrient Management

Assistance is available for promotion of IPM/ INM, development of facilities like Disease Forecasting Units (DFUs), Bio Control Labs, Plant Health Clinics and Leaf/Tissue Analysis labs, as per MIDH scheme. For implementation of IPM/ INM, currently, there is support at 30% of cost subject to a maximum of INR 1200/ ha limited to 4 ha per beneficiary with cost norm of INR 4000 per hectare.

However, the labor and other components have increased by almost 50% from 2014 and it is important to revise the cost norm by including additional components like bio-controllers, anti pest nets etc., Thus, it is proposed to provide 50% of cost subject to a maximum of INR 20,000 /ha limited to 2.00 ha/ beneficiary which include pheromone traps, labor cost, cost of nutrient and fertilizers, and cost of pesticides. with project cost norm of INR 40,000/ ha.

8. Product development for indigenous commodities and value addition

To promote new and innovative products development, filing of patents becomes imperative. As per, Himachal startup Policy- Chief Minister's Startup/ Innovation Projects/ New Industries Scheme, the cost of filing and processing of patent application will be reimbursed to the incubated startup companies subject to a limit of INR 2 lakh per Indian patent awarded or actual cost incurred, whichever is less. For awarded foreign patents on a single subject matter, up to INR 10 lakh or actual cost incurred, whichever is less would be reimbursed. The reimbursement will be done in 2 stages, i.e., 75% after the patent is filed and the balance 25% after the patent is granted.

It is proposed that the fees for filing the patent for innovative products related to horticulture by startup/ MSME/ FPOs may be reimbursed up to 5 lakhs as financial incentive. The applicant will receive 50% of this reimbursement when they file and the remaining after the grant of patent related to horticulture in conjunction with Himachal startup Policy- Chief Minister's Startup/ Innovation Projects/ New Industries Scheme. However, the same policy may be applicable for incentives for foreign patent award.

9. Good Agriculture Practices

For long term marketing and export benefits, implementation of GAP is of utmost importance. Currently as per MIDH, for certification for Good Agricultural Practices (GAP), 50% of cost to maximum of INR 5000 per ha subject to limit of 4 ha per beneficiary with cost norm of INR 10,000 per ha is being provided. The INDGAP and GGAP certification costs are much higher than existing cost norms.

60% of cost subject to maximum of INR 40,000/ha with maximum of 4 ha/beneficiary.

10. Organic Farming

The organic farming system is based on holistic approach for production of food with soil and biosphere management for improvement in soil health, healthy plant life, animal life and human life.

As per Paramparagat Krishi Vikas Yojana (PKVY), financial assistance of Rs 50000/ha/3 years is provided for cluster formation, capacity building, incentive for inputs, value addition and marketing. Out of it, Rs 31000/ ha / 3 years is provided for preparation / procurement of organic inputs such as bio/organic fertilisers, biopesticides, seeds etc. through DBT and Rs 8800/ ha/ 3 years is provided for value addition and marketing that includes post- harvest management practices like storage.

In similar to above, it is proposed to provide one time assistance of INR 10,000 per ha for branding and promotion of organic produce in addition to existing Paramparagat Krishi Vikas Yojana (PKVY).

11. Natural Farming

Natural Farming is a unique chemical-free farming method and is similar to organic farming only with an agroecology-based diversified farming system that integrates crops, trees, and livestock, allowing functional biodiversity.

As per Bhartiya Prakritik Krishi Padhati- Department of Agriculture, Government of India, one time assistance of Rs 2000 per ha is being provided to farmers as DBT for the purchase of liquid manure drums and botanical extract preparation containers.

Similarly, it is proposed to provide one time assistance of Rs 2500 per ha (additional INR 500) to farmers as DBT for the purchase of liquid manure drums and botanical extract preparation containers.

As per Prakritik Kheti Khushal Kisan Yojana- Department of Agriculture, Himachal Pradesh, the following assistance is being provided:

- 80% subsidy (maximum Rs. 8000 per natural farming farmer) for changing the cowsheds to make the cowsheds firm and collect cow urine and dung.
- 75% subsidy on drums (maximum 750/- per drum and maximum 3 drums/for natural farming farmer family) for making inputs used in natural farming to farmers
- 50% gratuity on indigenous cow and maximum gratuity of Rs 25000/- and 5 thousand extra is being given for its transportation.
- Assistance up to Rs. 10,000/- to open natural farming resource reserves in each village for the supply of inputs used in natural farming.

The incentives under Prakritik Kheti Khushal Kisan Yojana by Department of Agriculture, Himachal Pradesh shall prevail.

12. Packaging

The usage of innovative packaging material which have following qualities shall be promoted which is Environment friendly, ease of use, providing protection and support to the commodity, help in enhancing shelf-life.

Packaging is the main requirement for transportation and marketing. The proposed support for packaging is to provide one time reimbursement at 25% of packaging material cost as per actual amount incurred in invoice subject to maximum invoice amount of INR 25,000 per beneficiary. The same incentive may also be applicable for bagging of fruits.

The bio- degradable material packaging and natural materials (which are otherwise waste material) like Grass, Bamboo etc., shall be promoted. There shall be provision for timely evaluation and testing for any new packaging material invention.

13. Green Technology

It is proposed to promote Green Technology by supporting FPOs/ individuals working in Horticulture produce/products. The green technologies include use of R32 refrigerant recycling of waste, energy regeneration through biomass, mulching, use of clean fuel for transport, utilization of on farm inputs, mulching with organic manure etc., It is suggested to provide an incentive of INR 20,000 per FPO in Horticulture produce/ products.

14. Marketing

The online trading enables efficient connection of farm gate to distant markets. It is also possible to obtain competitive rates, maintain transparency in the trade of produce. eNAM which is being implemented by the central government scheme may be explored to the full extent for sale of horticulture produce. There are various incentives introduced by other states to promote online trading as follows:

Telangana: Exemption of Market Fee @ 0.25 % and collecting only 0.75% if trader/CAs undertake market transactions from end to- end trading process in e-NAM programs for a period of 1 year.

Rajasthan:

- State Level: Annual cash Prize of One Lakh each to best1 farmer & best 1 trader
- State Level: Fifty Thousand (Two Prizes – 2 farmers & 2 traders)
- Division Level: Annual cash Prize of Fifty Thousand each to best1 farmer & best 1 trader
- Division Level: Twenty- Five Thousand (Two Prizes – 2 farmers & 2 traders)
- APMC Level: Annual cash Prize of Thirty Thousand each to best1 farmer & best 1 trader
- APMC Level: Fifteen Thousand (Two Prizes – 2 farmers & 2 traders)

Department of Horticulture in association with Himachal Pradesh State Agricultural Marketing Board (HPSAMB) may encourage stakeholders in APMCs including sellers and buyers to participate in online trading on eNAM by devising trade related incentives. It is proposed to provide exemption of 0.25% of market fee for traders who undertake transactions through end- to- end online trading process in eNAM. In addition, top 3 farmers and 1 FPO performing trade through eNAM may be awarded a cash prize of about INR 50,000 (in the ratio of 5:3:2) for farmer and INR 1 lakh for FPO respectively in each district every year.

It is also proposed to implement Market Intervention Scheme (MIS) for low grades and Fair Average Quality (FAQ) for all horticulture crops. Currently, MIS is applicable for Apples where price is set at INR 9.50 per kg, the handling charges of INR 2.75 per kg and assumed sale realization of INR 3.50 per kg which can be procured in 35 kilo bags with 2.5% more fruits.

15. Horticulture Mechanization

The various components (3- 8) in Sub-Mission on Agricultural Mechanization (SMAM) include the following which provide maximum of 50% assistance to SC, ST, Small & Marginal farmers, Women and NE States beneficiary and similarly 40% for others.

- Financial Assistance for Procurement of Agriculture Machinery and Equipment
- Establish Farm Machinery Banks for Custom Hiring
- Establish Hi-Tech, High Productive Equipment Hub for Custom Hiring
- Promotion of Farm Mechanization in Selected Village

- Financial Assistance for Promotion of Mechanized Operations/ hectare Carried out Through Custom Hiring Centers
- Promotion of Farm Machinery and Equipment

All eligible beneficiaries under each of the components may be given 60% assistance to support horticulture mechanization, subject to existing cost norms as per Sub-Mission on Agricultural Mechanization (SMAM). Custom Hiring Centers (CHCs) on PPP mode may be promoted which may have relevant machinery including Crates, CFB boxes, harvest equipment/ tools etc., Component 1 and 2 under SMAM in which Central Government provide 100% assistance shall prevail.

16. Drones

Drones can be used for targeted input application, timely diagnosis of nutrient deficiency, crop health monitoring, rapid assessment of crop yield and crop losses. Crop nutrient spraying through drones facilitates rapid application and can be used to treat large areas quickly. The drones have capability to fly at low height (1m-3m) over the crop canopy making them suitable for spraying crop nutrient. The soil and crop nutrient application using drone saves on input cost and environment.

The spray of fertilizers and pesticides through traditional means cause damage to the human being health and environment, along with wastage of chemical and excessive usage of water. Drone based sprays are environmentally friendly, require less amount of water, fertilizers, and pesticides due to better application and bio efficiency. These can also be used for organic liquid fertilizers. Drone planting systems have also been developed by many start-ups which allow drones to shoot pods, their seeds and spray vital nutrients into the soil. Thus, this technology increases consistency and efficiency of crop management, besides reducing the cost.

As part of Sub-Mission on Agricultural Mechanization (SMAM) and Kisan Drones-Department of Agriculture, Government of India provides 50% or maximum INR 5 lakh subsidy to SC-ST, small and marginal, women and farmers of north-eastern states to buy drones. For other farmers, financial assistance will be given up to 40% or maximum INR 4 lakh is being provided.

Moreover, 100 % cost of drones together with the contingent expenditure is extended under Sub-Mission on Agricultural Mechanization (SMAM) to the Farm Machinery Training & Testing Institutes (FMTTI), Institutions of Indian Council of Agricultural Research (ICAR), Krishi Vigyan Kendra (KVK) and State Agricultural Universities (SAUs) for its demonstration on the farmer's fields. Farmers Producers Organizations (FPOs) are given grants at 75% for the purchase of drones for its demonstration on the farmers' fields.

Thus, it is proposed to provide 60% subsidy or maximum of INR 5 lakh subsidies for all horticulture related farmers, FPOs etc., for purchase of drones. In addition, Himachal Pradesh drone policy 2022 which focus, and support drone enabled governance in sectors including Horticulture, Drone flying training schools, integration with National Education Policy and Start- up policy etc., Drone Mahostav and Melas shall prevail.

17. IoT driven Value chain

Internet of Things shall be promoted wherever applicable in the value chain including

Horticulture Production, Precision Farming, Irrigation for precise nutrient management, spray schedule management and traceability of produce during marketing and latest technologies including drones, nano Technology for precise foliar application of micro- nutrients like Zn, B, Mo and Mn in horticulture crops and Anti-bacterial coating, anti- fungal coating, ethylene absorbers, impregnation in packaging material to enhance shelf life in packaging.

C. Capacity building and Institutional Strengthening

1. Kshamta se Samruddhi Program

The **"Kshamta se Samruddhi"** program for department of horticulture may be implemented which would be responsible for the overall capacity building related to horticulture in the state. A professional agency would be hired to do gap analysis and further execution of the project. This will be monitored at state level. Center of Excellence will be linked with the project.

2. Project Consultancy and Management Unit

A Project Consultancy and Management Unit (PCMU) may be set up at Department of Horticulture, HP level to handhold the department, monitor effective implementation of the policy. The PCMU may coordinate with relevant stakeholders and update government from time to time regarding implementation of the policy. PCMU may also suggest mid-course correction for effective implementation, Transaction support for onboarding professional agencies, Post transaction monitoring, development of monitoring dashboard etc.,

A professional agency may be hired through a transparent bidding process/NICSI rates to set up PCMU with Department of Horticulture, HP.

There will be dedicated professional agencies that may be on boarded with the help of PCMU in the following fields such as Training and Capacity building, Export facilitation, Marketing and Branding. PCMU may assist Department of Horticulture in monitoring of these agencies.

The broad responsibilities of these professional agencies may be as follows:

i. Training and Capacity building: Execute the overall capacity building programs related to "Kshamta se Samruddhi" program, including preparation of training plan and implementation of programs at ground level with coordination from department and universities, deployment of Horticulture Extension Functionaries. This may also collaborate with Universities/ Institutions for demonstration of new technologies to conduct regular trainings/ workshops.

ii. Export facilitation: To work closely with department and handhold stakeholders like FPOs, farmers, exporters and facilitate exports to identified export destinations, Information dissemination on various schemes and benefits available for export promotion and required support in availing, creating linkages etc.,

iii. Marketing and Branding: This may promote "Brand Himachal" and assist in maintenance of adherence to quality standards and follow the standard packaging practices by stakeholders, organizing marketing campaigns in both domestic and international locations.

3. Vocational courses

To develop specialized manpower with focus of specific skills, the state Universities / KVKs/ Government Schools may encourage vocational courses.

- Plant health management
- Organic farming
- Natural Farming
- Mushroom production
- Bee keeping
- Floriculture cultivation and management
- Pack house, Cold storage etc., and Supply chain management
- Post- harvest management and Processing technology
- Drone Technology and IoT
- FPO management

As per Odisha Farmer Producer Organizations (FPO) Policy, 2018, the government reimburses to the extent of INR 10000/- per year encouraging students to pursue approved courses on FPOs.

Similarly, the Government may encourage students to pursue approved courses on FPOs or any of the vocational courses as listed above and reimburse their fees to the extent of INR 10,000/- per year.

4. Horticulture University/College/Institute

Department of Horticulture may propose to augmentation of existing universities or creation of new universities/colleges/institutes etc.

5. Human Resources

It is proposed to augmentation of Technical Human resources within the Department of Horticulture to implement the schemes/projects effectively.

6. Incubation Center

As per Himachal Pradesh startup policy, financial assistance for three years to the selected institutions for setting up the incubator and other activities is being provided up to INR 30 lakhs per incubator per year up to three years.

It is proposed to establish Incubation center by State University of Horticulture and Forestry/ CoE- Horticulture and incentives as per Himachal Pradesh startup policy shall prevail.

In addition, it is suggested to promote entrepreneurs and start- ups to provide innovative solutions across value chain including technological solutions, financial services etc., for increasing access to savings, payments, insurance, and credit services to farmers.

7. Centre of Excellences

Centre of Excellences for different crops/ commodities are proposed to be established with National/ International collaboration for different horticultural and allied activities which will serve as demonstration and training centres as well as source of planting material.

- Centre of excellence for Floriculture
- Centre of excellence for Mushroom
- Centre of excellence for Bee keeping
- Centre for plant Genetic Resources/ Germplasm Conservation
- Centre of excellence for Potential Fruit crops
- Center of Excellence for High Tech Nursery

There is provision of maximum permissible cost of INR 1000 lakh/ center as per MIDH scheme under Center of Excellences. It is proposed to provide 100% of cost to public sector. This can be established through bi-lateral co-operation.

D. Research and Development

1. Research and Innovation hub

Research and Innovation Hub facilitates to actively carry out research in both production and post-harvest technology as per farmers need and standardize the same for the benefit of farmers and local community. Private body may also be included. It may be housed in State Agricultural Universities (SAUs)/such institutes.

- **Research on development of environmentally friendly protocols** like bio-enhancers for micro- organisms, Bio- fertilizers, Bio pesticides, Organic farming & Natural farming, Integrated pest management, Integrated nutrient management.
- **Research on Hitech Technologies** including Genetic Engineering, Hydroponic, Aeroponic, Post- harvest technology, Machinery suitable for harvesting in high density plantation in hilly terrain
- Design of energy efficient produce evacuation solutions including well ventilated trucks for short duration haulage etc.,
- Development of active packaging solutions and usage of natural products like grass, bamboo in packaging.
- Formulation of specific export shipment and logistics protocols for fruit crops
- Development of harvest and post- harvest protocols for horticulture crops including suggested intercrops for various fruits.
- New technology adoption in the state for Hail control systems like Anti- hail guns, Agro- Photovoltaic Anti hail systems / solar energy anti-hail nets etc.,

The expertise in Department of Horticulture and Universities shall be utilized in various projects in India as well as collaboration with international bodies shall be strengthened. It is proposed to explore possibility of in-house consultancy wing.

E. Alternative Interventions

1. Single Window Clearance

A single window system for registration, submission of applications for incentives, online trade license, approvals from other line departments for farmers, FPOs, promoters, and other beneficiaries across the state may be established or existing portal may be upgraded. This may reduce turnaround time, transparency and may enable in effective monitoring. This portal shall be integrated with other line departments' portals and also with single window clearance portal by Department of Industries, Himachal Pradesh.

2. Horticulture led Rural Resurgence

Horticulture tourism is a type of activity that brings tourists to a farm or ranch to experience agricultural or horticulture products, gain knowledge about the farming occupation and enjoy different kinds of farming activities. This concept has gained massive popularity in countries like the United Kingdom, New Zealand, Italy, United States, etc. As per various reports, the global agri- tourism market was valued at USD 69.24 billion in 2019 and is projected to reach USD 117.37 billion by 2027.

States like Maharashtra and Madhya Pradesh are promoting Horti tourism by establishing farm stays/rural stays clubbed with farming activities, selling of fresh farm produce, engaging tourists in traditional games, nature walks, and educational/technical tours, wherein horticulture activities act as the main attraction.

In Himachal Pradesh, there is an immense potential to develop Horticulture tourism, the state is famous for its fruit crops such as Apple, Mango, Plum, Litchi etc. Currently, many tourists engage in fruit picking activities in different parts of the state, largely conducted by small farm owners. The development of Horticulture tourism in the state can very well diversify income generation options for farmers and can ensure a stable source of revenue generation apart from existing production.

The Department of Horticulture in consultation with tourism, forest and rural development, shall facilitate the development of Horticulture tourism clusters in the state by identifying suitable land parcels across all the districts of the state. These land parcels should preferably be located near major tourist destinations of the state such as Shimla, Manali, Dharmshala, Dalhousie etc, to attract tourists in large numbers.

Horticulture tourism clusters can be developed by involving local communities engaged in horticulture production activities. The clusters will promote locally produced horticultural products and serve as a platform for visitors to learn about farming, rural lifestyle, local cuisine and food products. Further, to attract tourists' facilities such as log huts, mud houses, gaming activities, nature walks, trekking and hiking activities can also be developed. The revenue generated by these clusters will improve the livelihood conditions of local farmers and their surrounding communities.

The Horticulture Tourism Project may have following components:

- Horticulture orchard/garden
- Sustainable Lodging Facilities such as Tented Huts, log huts or mud houses and Home stays
- Farm Day Tour including farmer interaction.
- Farming activities including picking fruits
- Adventure Games such as mountain climbing, bungee jumping, zip-line, river crossing, skywalk, rappelling, paragliding etc.
- Traditional Games such as Tractor Ride/ Cart Ride.

- Promotion of Local Art & Culture by organising folk dance, traditional music shows to depict local culture & heritage.
- Sale of Produce from Horticulture and local handicrafts items
- Promotion of Local Cuisine

Some of the interventions that are proposed to promote Rural resurgence in terms of Horticulture Tourism in Himachal Pradesh are as follows, similar to interventions proposed under Himachal Pradesh Tourism Policy- 2019 and Karnataka Tourism Policy 2020-26:

- Viability Gap Funding to setup accommodation facility for Horticulture tourism project ranging from INR 50 Lakhs to INR 5 Crores depending on the size of accommodation facility.

- Assist in financial support for development of approach road, construction of water pipe till the proposed Horticulture Tourism Cluster/orchards.

- Provide interest subsidy on the loan taken from Banks, State Financial Corporations, or any State level financial institutions subject to a maximum of INR 25 Lakh for a period of five years.

- DOH in coordination with Tourism department may assistmay support in Marketing and Promotion of Horticulture Tourism Clusters/Orchards, the department may provide financial assistance of INR 5 lakhs per cluster in a year to organize any festival or events in the premises for Tourism Service Providers including Home- stays etc.,

3. Apiculture

As per MIDH, support is being provided for production of bee colonies by breeder (40% of cost for producing min of 2000 colonies/ year, for maximum permissible cost of 10 lakh), Honey- bee colony (40% of cost limited to 50 colonies/ beneficiary, INR 2000/colony of 8 frames), Bee- hives (40% of cost limited to 50 colonies / beneficiary, INR 2000/ hive) and Equipment (40% of the cost limited to one set per beneficiary, INR 20,000/set).

It is proposed to provide 50% of cost for all components including production of bee colonies by breeder, Honey- bee colony, Bee- hives, Equipment.

Fruit, flower-based honey should be prioritized. In addition to natural honey, value addition products/ by products including Bee wax, Propolis, Pollen, Royal Jelly, Bee Venom, should be promoted.

Quality testing labs should have a testing facility with NMR (Nuclear Magnetic Resonance Technique) which can do chemical fingerprinting of honey, unique to each batch and reliably detect purity issues, botanical source, so that there is no mixing and adulterants.

It is difficult for honey- bees to survive in winters as it is dearth period and also due to cold weather and lack of flowers. Thus, migration is mandatory for bees' survival in winter season especially in temperate regions. Thus, it is proposed to provide 50% assistance for migration of Honey- bees up to INR 2 lakhs/ Farmer/ individual.

Promotion of Bee flora for dry season should be promoted. Integrated Beekeeping Development Cell shall be developed in different zones in Himachal Pradesh. Other incentives as per Mukhya Mantri Madhu Vikas Yojna shall prevail.

4. Mushroom

The maximum permissible cost of Production unit, Spawn making unit, Composite making unit is INR 20 lakh/ unit, 15 lakh/unit, 20 lakh/ unit respectively, in which about 40% of the cost for private sector as credit linked subsidy is being provided as per MIDH scheme.

In addition to already existing GoI/ State Government Schemes, it is important to promote automated units and thus additional limit may be provided resulting in maximum permissible cost of INR 1.5 crore/ unit, INR 40 lakh/ unit and INR 25 lakh/ unit for automated on production unit, spawn making unit and compost unit respectively in which about 50% of the cost for private sector as credit linked subsidy. This is applicable all varieties of mushrooms including specialty mushrooms. In addition, production of specialty mushrooms like medicinal mushrooms may be promoted.

5. Floriculture

The following assistance is provided under Pushp Kranti Yojana.

Protected Cultivation:

Green House structure: 85% of cost for a maximum area of 4000 sq.m. per beneficiary for each of Fan & Pad system and naturally ventilated system.

Shade Net House: 50% to 80% support for Tubular structure, Plastic tunnels, walk in tunnels, cost of planting material & cultivation of Carnation & Gerbera under poly house/ shade net house, cost of planting material & cultivation of Rose and lilium under poly house/ shade net house.

Open Field Cultivation:

Flowers (for a maximum of 2 ha per beneficiary)- 50% of cost per beneficiary for each of cut flowers, Bulbous flowers, loose flowers.

- It is proposed to establish export- oriented Floriculture Park. The packhouse and other facilities catering to flowers shall be connected to this Floriculture Park.
- Tax exemption on state GST as per policy shall be applicable for Shade net house and polyhouse as well.
- Speciality flowers shall be promoted and incentivised.
- A separate pavilion shall be provided in Ghazipur mandi.
- Himachal Pushp Kranti Yojana shall prevail.

6. Health and nutrition

To make Himachal Pradesh people nutritionally rich and promote integration of horticulture with health and nutrition, following interventions are required:

- Integration of horticulture produce in mid-day meal scheme. Flowchart with

nutritional data can be circulated in anganwadi and nutrition and food security teaching should be made mandatory.
- Observing days like **"Fruits day"** to spread the theme of "Horticulture-as nutritional crops".
- Nutritional gardens with various fruit trees will be promoted along with homestay facilities.

7. Initiatives with other line departments

Department of Horticulture may be given priority to related activities in other state departments in Himachal Pradesh like Public Work Department (PWD), Himachal Pradesh Tourism Development Corporation (HPTDC), Department of AYUSH, Jal Shakti Vibhag, Department of MSME, Department of Information Technology etc. as well as Central Ministries.

8. Introduction of new and improved germplasm and quality planting material

Appropriate planting material and rootstock are the backbone to achieve higher productivity in horticulture crops. Immediate measures should be taken for adequate availability of planting material of latest varieties to the farmers. Similarly, looking into the climatic conditions, stress tolerant root stock (for specific conditions) should be made available to farmers.

9. Standards for Domestic and Export Market

GLOBALGAP (EUREPGAP) Standards is recommended for trading in export market for ease of doing business. Measures can be adopted by authority to do audits for checking such certification are done in appropriate manner to avoid any kind of risk and fraudulent practices.

10. Integration of Infrastructure

It is proposed to revamp existing production infrastructure, for instance, poly houses, green houses can be used to cultivate high value crops like strawberry.

11. Carbon Markets

Climate change is posing serious threat to agriculture and allied sectors adversely affecting food security at global level. In India, problems faced by horticulture are further exacerbated with unexpected climate change events, majorly through emission of greenhouse gases. A sustainable reduction in greenhouse gas emissions from horticulture is one of the key objectives of adopting climate smart horticulture through use of low carbon practices. In addition, the concept of carbon off- setting proposed with application aspects such as how farmers benefit from carbon markets through horticulture plantation in their respective clusters. Thus, it is important for implementation of carbon marketplace concept to encourage farmers follow environmentally beneficial practices.

12. Financial Institutions

Department of Horticulture may work with Financial Institutions, Non- Banking

Financial Companies, Banks, Fin tech companies to introduce innovative financial solutions to provide credit services to farmers/ FPOs and increase digital payments. A challenge Fund may be created where NBFCs/Financial Institutions may be called with their innovative financial solutions to support farmers similar to Assam Challenge Fund.

13. Weather related information dissemination

Automated Weather Forecasting systems should be used for forecasting accurate information at least 15 days in advance and disseminate this information to FPOs, so that they can take appropriate remedial measures against hailstorms, frost, temperature extremities etc.,

14. Rural Advisory Services

Promoting inclusive Rural Advisory Services, while investments in R&D are needed in order to expand the potential for sustainable production, sharing knowledge about technologies, and innovative practices among family farmers is perhaps even more important for closing existing gaps in productivity and sustainability. Modern extension features many kinds of advisory services as well as service providers from the public, private and non-profit sectors.

In order to share the technical knowledge, a system of community radio is important to deliver advisory services and sharing of knowledge among community members.

15. Gender and inclusion

For promoting more women participation **extra incentives (1% extra)** should be provided to the collectives who have a greater number of women members and women in the leadership roles. It is imperative that at least 30% women should be benefited from above schemes.

16. Electricity

Agriculture electricity connections may be given to horticulture including mushroom production units.

17. Registration and stamp duty incentives

50% Exemption from payment of Stamp duty and registration fees for Lease of land/ shed/ buildings and mortgages and hypothecations related to horticulture.

18. Tax holiday

State GST exemption for 5 years for any services rendered in horticulture sector including sale & purchase of horticulture produce or products.

19. Self- Regulation

As the government is gearing towards a regime of self-compliance it is suggested that state should encourage FPOs to voluntary adopt all requirements for setting up and the operation of GAP, organic production, processing units licenses and regulations, building regulations, products & standards, packaging & labelling, environment and pollution control and these should be regularly monitored by the members.

Note:

The following process may be followed for incentives which are extension to the existing Central sector/ state schemes:

The share of central and state level in funding the assistance/ subsidy pattern in most of the central sector schemes is 90:10 (Himalayan state), that are getting implemented at state level (eg. MIDH). For existing schemes, the proposed subsidy percentage and cost norms may be implemented in the same proportion, till the existing cost norms/ subsidy percentage are exhausted. The costs that are over and above the existing norms, may be covered by the state government. State level provisions may be made by the concerned departments to cover any additional crops/ criteria, that are not already covered in the existing schemes.

The components for which cost is more than proposed cost norm, the incentive shall be applicable only till proposed cost norm.

The beneficiary may apply following the existing implementation process for proposed norms and the concerned departments have to make provisions to implement the additional requirement. The single window clearance system integrating all the relevant line departments may be developed, either by augmenting existing eUdyan portal- Department of Horticulture or developing new portal in the due course.

9. Outcomes from Himachal Pradesh Horticulture Policy ("HPHP")

The policy implementation will bring about a new era in horticulture revolution in the state resulting in house production of true-to-type quality planting material, scientific cultivation of fruit crops in different type of planting system (with focus on high-density and ultra- high density), scientific orchard management (canopy, irrigation, nutrition, pest and disease management), recent technological practices for post-harvest management(harvesting at right maturity, sorting and grading, usage of appropriate packaging and transport techniques), development of innovative and value added processed product and state specific research and development technologies.

The establishment of orchards, nurseries, collection centres, pack houses with cold storages, CA storages, ripening chambers will also help in creation of new industries in the state like polyhouse manufactures, micro irrigation equipment, packaging material industries, printing and labelling industries, transportation support industries, insulation material industries, manufacturing units etc., This will herald a new era of commercial horticultural industry revolution creating significant employment, scientific temper and a huge market along with focus on nutrition and eco-friendly tourism.

The benefits are expected in quantitative and qualitative terms which are stated below:

Expected Quantitative outcomes:

- An overall average assistance of about 60% to beneficiary related to establishment of orchards, Anti hail nets, Fencing, Integrated Pest and Nutrient Management, irrigation etc.,
- Collectivization of farmers through formation and promotion of about 500 Farmer Producer Organizations dedicatedly in Horticulture sector.
- The establishment and strengthening of about 18 Hi- Tech nurseries with production capacity of about 18 lakh planting material per annum.
- Adoption of High and Ultra high density, an increase of 26% and 29% in yield per hectare respectively is expected compared normal spacing
- Target coverage of about 1 lakh hectares under Micro irrigation. Micro irrigation helps in saving of water by 70% results in water conservation. It will also help in promotion of ancillary industries and water conservation.
- Protection from wild animals through adoption of composite fencing system, save about 20-25% damage to the crops without harming the animals.
- Additional area of about 37,000 ha to be brought under Integrated Pest and Nutrient Management.
- Additional 10,000 ha is proposed to be covered under Organic farming and Natural farming with 5000 ha allocation for each.
- GAP certification including training, registration, and certifications at zero cost for farmers and targets to cover about 4 certifications every year. GAP certification cost may be paid by Department of Horticulture to empanelled consultants.
- About 5 lakh farmers may be benefitted from one- time packaging cost reimbursement.
- Impetus for use of green environment friendly technologies and estimated to be adopted by 100 individuals/ FPOs in Horticulture produce/products which will have a larger impact on environment.

- The horticulture crops currently which are not covered under any insurance may receive sum insured in case of adverse weather events. This is estimated to be about 1.3 times cost of cultivation (Cost of cultivation ~1.95 lakhs per hectare) at approximately 2.5% premium by farmer and remaining premium percentage as charged by insurance company may be borne by government.
- About 15- 20 collection centers, 2-4 pack houses per district and total of 10 processing units, 4 ripening chambers and 5 CA storages in the state to be established.
- Skill development for all stakeholders in the value chain through sophisticated capacity building program- **"Kshamta se Samruddhi"** which may benefit more than 2 lakhs stakeholders.
- Seamless coordination among line departments and enhanced approval process through single window clearance and process any requests within 30 days.
- Target to have at least 30% women participation in various activities across value chain

Expected Qualitative outcomes:

Component	Qualitative Outcome/ Benefits
Infrastructure benefits	• Providing protection against frost damage and excessive heat • Better quality fruits due to uniform irrigation • Support for development of ancillary industries e.g., drip pipes, jointers, mains, laterals, water storage systems, connecters, valves, drippers, etc.
Post-harvest infrastructure	• Post-harvest infrastructure will help in primary processing of the produce to get better price in the market. • Controlled atmosphere storage will help in extending the shelf-life of produce for many months so that farmer collectives can plan the marketing as per demand in the market. • Processing facilities can be a major revenue earner as this will help in creating new and diversified products along with generation of employment. • Increase in market avenues and better price realization due to Export hubs, Hi- Tech Markets • Transport and logistics infrastructure will support in reducing the time required to reach the market and the produce will reach the market in better condition.
Hi Tech nurseries	• Inhouse production of disease free true-to-type quality planting material • Saving on transportation cost leading of benefits to the farmers and environment • Assurance of quality and lower mortality • Development of ancillary industries for polyhouse, shade net, water storage structures, mist system, fan and pad system, grow bags, laboratory chemicals, glass wares etc.
Anti- hail nets and Composite fencing	• Assistance in installation of support system for anti- hail nets for all crops as well as installation of anti- hail nets • Composite fencing installation to protect from wild animal's attack
Crop Insurance	• Helps to mitigate the impact of adverse weather events

	• Provides assurance to farmers to continue farming activities and not migrate to other occupations
Integrated Pest and Nutrient Management	• Reduces the pesticide problem, making the product more suitable for export • Better for environment and human population • Reduces ground water contamination • Decreases workers' exposure to pesticides • Reduced cost when compared to chemical pesticides. • Supplies balanced nutrition, timely application and foliar application • Prevents hidden deficiencies and minimize the antagonistic effects resulting from nutrient imbalance • Enhances the availability of applied as well as native soil nutrient
Organic farming	• Enhances the organic Carbon content in soil • Reduces pesticide and chemical residue in the soil • Promotion of biodiversity • Consumes less energy as it doesn't rely on the use of synthetic fertilizers. • Long-term sustainability • Soil conservation and better waste management
Natural farming	• On-farm generation of inputs, resulting in lower cost • Low application of pesticides • Better for soil, water, and environment
Good Agriculture Practices	• For Indian farmers and exporters, Compliance to GLOBALGAP is a must for the export of various fresh fruits and vegetables to European Countries.
Packaging	• Standardization of crop-specific packaging technology • Promotion of new, innovative and biodegradable packaging like banana leaves, starch coating, grass and bamboo etc.,
Capacity Building and Institutional Strengthening	• Effective and timely dissemination of scientific information to stakeholders • Augmentation of related infrastructure including Center of Excellences etc., as well as Human resources
Research and Development	• Focus on need-based research specific to the state • Development of climate resilient varieties • Development of post-harvest and shipment protocols
Other Outcomes	• Create competitive environment among farmers and FPOs to achieve the highest productivity, participation in online trading system. • Encouraging startup ecosystem through establishment of incubation center and additional assistance in filing of patent. • Better reach of inputs, coordination, and information dissemination • Additional income generation through Horticulture tourism, Floriculture, Apiculture, Mushroom etc., • Improve nutrition among people in HP.

Cumulative Impact:

- This policy is expected to bring significant increase in productivity from 4 MT per ha to 20 MT per ha through implementation of scientific modern technologies.
- In terms of manpower enrichment, the policy will have employment generation to the tune of 6,00,000 and is expected to have a 2.5 times multiplier effect.
- Doubling the contribution of horticulture in state GDP by 2032 and ultimately result in achieving the vision- Himachal Pradesh as the "Fruit bowl of India"

10. Annexures

Annexure 1: Benchmarking with policies/ schemes

Horticulture Mission for North- East & Himalayan States (HMNEH) under Mission for Integrated Development of Horticulture (MIDH) scheme is the most relevant sub-scheme dealing with Horticulture. HMNEH sub-scheme covers 11 states including Himachal Pradesh, the funding pattern for which is 90:10 from 2015-16 onwards. Similarly, NHM sub-scheme covers 18 States and 5 Union Territories, the funding pattern for which is 60:40 between the Centre and the State Government and 100% from the Central Government to Union Territories (UTs). The assistance provided in the form of subsidy, maximum permissible cost under this HMNEH or NHM scheme is almost same across all the states. There are either minor modifications in these policies or introduction of new schemes across states as per their requirement. In addition to MIDH, other central sector schemes implemented by MOFPI, Agriculture Infrastructure Fund etc.

Crop Cluster Development Program (CCDP) is being implemented in Haryana state. This scheme is based on development of backward and forward integrations by creating on farm infrastructure required for organized marketing of Fresh Fruits and Vegetables (FFV) for Farmer Producer Organizations. The assistance to FPOs varies between 70 and 90% on the components of eligible project cost. 90% assistance is provided for post- harvest facilities like collection centre/ packhouse development in different clusters including grading/ packing machines, cold rooms/ storages, refer vans, refer containers. The assistance will be released in three instalments of 25%, 40% and 35%[1].

i. Brazil

The brazil horticulture is classified by with large-scale, export oriented agricultural production but that is for 15 % of the farmers. The rest 85 percent of all farms represents the vast majority. This type of agriculture is frequently characterized by insufficient marketing opportunities and lack of access to credit, insurance and agricultural inputs.

The recent horticultural program for refinement of this sector were introduced clearly geared towards promotion of the agricultural sector, but they also link this with social and regional development. These programs mainly involve facilitation of credit and reconstruction of a broad-scale extension service for farmers, but also hedging against price and crop risks and promotion of the sale of smallholder produce, insurance of crops, public purchasing, bio diesel purchasing and facilitating market access.

The Brazilian government has thus laid the foundation for an innovative agricultural policy: one that enables disadvantaged family farms to participate in the market economy process while simultaneously safeguarding their subsistence.

ii. The Netherlands

Horticulture sector in Netherland is constantly innovating, making the country a global

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[1] http://sfacharyana.in/Guideline

leader. However, current production methods are not without cost. The Netherlands faces serious social and ecological challenges and needs to prevent depletion of soil, freshwater supplies and raw materials, halt the decline in biodiversity and fulfil our commitments to **iii. The Paris climate agreement**

To comply to these parameters, the Netherland is proposing to utilize the circular system to reduce the cost of raw materials. The model is focused on circular principles and will bring about an ecologically and economically vital prevalent production method, in balance with nature. In such a circular system, arable farming, livestock farming and horticulture primarily use raw materials from each other's supply chains and waste flows from the food industry. The policy focus is also on soil conservation and soil quality, food safety and product quality.

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[i] The definition of existing schemes shall prevail along with any additional conditions as per Proposed incentives.

[ii] The definition of FPO as per Central Sector Scheme- "Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)" shall prevail which include farmer- producers' organization incorporated/ registered either under Part IXA of Companies Act or under Co-operative Societies Act of the concerned States. However, the incentives shall be applicable only for FPOs handling Horticulture Produce.

[iii] Green technology may include but not limited to use of R32 refrigerant recycling of waste, energy regeneration through biomass, mulching, use of clean fuel for transport, utilization of on farm inputs, mulching with organic manure.