

Annexure "J"

# IMPLEMENTATION GUIDELINES OF 29 PROJECTS CLEARED BY THE APEX COMMITTEE



सत्यमेव जयते

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Government of Jammu & Kashmir

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## 1. DEVELOPMENT OF SEED AND SEED MULTIPLICATION CHAIN

Intervention	Guidelines
<b>Revolving Fund at Department &amp; SAU level</b>	One time grant of revolving fund to State Agriculture Universities and Department of Agriculture J&K for production of breeder and foundation to complete seed multiplication chain
<b>Creation and Incentivisation of CSPs/SPOs.</b>	Certified Seed Producers (CSPs) like Farmers in PPP Mode/ Agripreneurs, etc. shall be created as per the guidelines of <b>Indian seed certification working manual-2021</b> while as Seed Producing Organizations (SPOs) like Private Seed Companies/ Organizations like NSC, SSC, FPO's etc. shall be created by virtue of MOUs to be executed with them for production of certified seed in PPP mode. Accordingly, incentivized rates shall be given to the CSPs/SPOs as detailed in rolling plan of the project after their certification by Seed Certification Agency through CAPEX budget.
<b>Seed Market Hubs</b>	Seed Processing Unit including labelling, branding and e-Marketing shall be established as per the guidelines of SMSP (Sub Mission of Seed and Planting Material with DAM (Digital Agriculture Mission)
<b>In-situ Conservation and community seed banks</b>	The Department of Agriculture J/K in collaboration with SKUAST J/K shall identify four places in UT of Jammu and Kashmir for in-situ conservation. Further, community seed banks shall be established at all block levels as per the guidelines of Seed Village Program (SVP).
<b>Capacity Development</b>	The Department of Agriculture J/K in collaboration with SKUAST J/K shall organize training programs as per the strict guidelines of ATMA

## 2. PROMOTION OF NICHE CROPS IN UT OF J&K

<b>Intervention</b>	<b>Guidelines</b>
<b>Production of quality planting material</b>	SMSP (Sub Mission on Seed and Planting Material) and PMKSY guidelines shall be followed
<b>Diversification of niche crops in potential areas</b>	MIDH (Mission on Integrated Development of Horticulture) guidelines shall be followed
<b>Value addition and Marketing</b>	MIDH (Mission on Integrated Development of Horticulture) guidelines shall be followed
<b>Human Resource Development</b>	ATMA guidelines shall be followed.
<b>Research and Development</b>	RKVY (Rashtriya Krishi Vikas Yojana) guidelines shall be followed

### 3. Promotion of Vegetables / Exotic Vegetables under Open and Hi-Tech Protected Cultivation.

<b>Intervention</b>	<b>Guidelines</b>
<b>Promotion of Exotic and High value Crops</b>	MIDH (Mission on Integrate Development of Horticulture) shall be followed
<b>Infrastructure Development</b>	
<b>Hi-Tech Greenhouse</b>	MIDH (Mission on Integrate Development of Horticulture) will be followed. However, Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>Polyhouses</b>	MIDH (Mission on Integrate Development of Horticulture) shall be followed. However, Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>Drip Irrigation(Micro-Irrigation)</b>	PMKSY (Pradhan Mantri Krishi Sinchayee Yojana) shall be followed. Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>Exotic and High Value Crops</b>	SMSP (Sub Mission on Seed and Planting Material) shall be followed . However, Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.

#### 4. STRENGTHENING AGRICULTURAL MARKETING IN UT OF J&K

Intervention	Guidelines
Market Reforms	Directorate of Horticulture, Planning & Marketing, J&K will implement the market reforms in letter and spirit after its due approval from Executive Council.
<b>Infrastructure Development</b>	
CA Stores, Grading Lines, Mini Cold stores, Reefer Vans, Pick-up Vans	The MIDH/NHB guidelines will be followed for these schemes. However, FPOs, and other cooperative groups will be preferred in process of beneficiary identification.
Potable grading lines	Potable grading lines will be given to RBSHs, FPOs, SHGs, and potential entrepreneurs in the business of post-harvest service management. Unemployed educated technical youth will also be given preference for this scheme. The implementing agency (DHP&M and DoH) will provide these grading lines throughout the geography and society of J&K based on merit where they deserve. The level of assistance is already mentioned in the budget.
Composting Units	Directorate of Horticulture, Planning & Marketing, J&K will establish the composting units at potential mandies under public sector with the help of Engineering Wing of GoJ&K which may be made operational through PPP mode.
Creation of New Mandies	Directorate of Horticulture, Planning & Marketing, J&K will be implementing agency for this activity in collaboration with the DDC Office of respective districts.
Institutional Building & Capacity Development ( <i>Niche Product Marketing FPOs</i> )	Directorate of Horticulture, Planning & Marketing, J&K in collaboration with allied departments as well as SKUAST-K & SKUAST-J will form, promote and handhold the niche product marketing FPOs. The guidelines for formation of FPOs will be followed in similar way as adopted in other FPOs in agriculture & allied sector.
Branding	Directorate of Horticulture, Planning & Marketing, J&K in collaboration with SKUAST-K and SKUAST-J will establish the 02 ABC centres and start branding activities of agriculture and allied produce from UT of J&K. These two ABCs will either come up in two farm universities or DHP&M may identify the land/infrastructure for functioning of these centres.
Rural Business & Service Hubs (RBSHs)	Directorate of Horticulture, Planning & Marketing, J&K in collaboration with allied departments as well as SKUAST-K & SKUAST-J will identify, capacity build and promote RBSHs in phased manner across all districts of J&K. FPOs, SHGs, Cooperative Societies, technical graduates, agriculture & horticulture and allied graduates will be preferred for this scheme. The 50% will be from UT Capex and 50% (Rs 15 Lakh) beneficiary share which he can raise from bank through AIF Scheme where the beneficiary will get interest subvention.

Market Intelligence	SKUAST-K in collaboration with Directorate of Horticulture, Planning & Marketing will implement and operationalize the activity as a permanent scheme. The budget allocated for the R&D activity of the scheme will be made available to SKUAST-K institute in annual equal instalments. The SKUAST-K institute will carry out the R&D, policy studies related to markets and trade of potential commercial commodities besides market intelligence activities. Provision of consultancy studies under the contingency may also be part of this activity for overall benefit and mandate of this centre/scheme/activity.
Digital Marketing	Directorate of Horticulture, Planning & Marketing, J&K in collaboration with allied departments will implement the digital marketing activity. The said activity may also be made operational in PPP mode.

## 5. PROMOTION OF COMMERCIAL CULTIVATION OF MEDICINAL AND AROMATIC PLANTS (MAP) IN THE UT OF JAMMU AND KASHMIR

Component	Stakeholder	Guidelines
<b>Cultivation And Harvesting</b>	<ul style="list-style-type: none"> <li>• Farmers (Growers)</li> <li>• Farmer Producer Clusters</li> <li>• Certified Nurseries</li> <li>• Startup Growers</li> <li>• J&amp;K Medicinal Plant Board</li> <li>• SKUAST Kashmir (Technical Support Group)</li> <li>• SKUAST Jammu (Technical Support Group)</li> </ul>	<ul style="list-style-type: none"> <li>• Selection of suitable sites in each district for crop suitability.</li> <li>• Hold awareness programs for farmer cluster formation.</li> <li>• Identify the prepared farmers in each suitable zone with a target of 20-50 farmers in each micro zone. (28 farmers cluster groups across J&amp;K).</li> <li>• Identify public sites for nursery area of 5 ha (3 each in Jammu and Kashmir region).</li> <li>• Standardize land preparation.</li> <li>• Procure required equipment and materials.</li> <li>• Identify farmers from micro zones (district level) for formation of FPO Park (1 each in Jammu/Kashmir) with a target of at least 100 farmers each.</li> <li>• Work out modalities for establishment of FPO and Register both the FPOs headquartered at one of the Nursery sites.</li> <li>• Establish the infrastructure and equipment required for FPO park.</li> <li>• Establishment of model nurseries</li> <li>• Procure of germplasm in the first instance from public/private sources.</li> <li>• Hold capacity building program for good agricultural practices.</li> <li>• Cultivation of the species using good agricultural practices (GAPs)</li> <li>• Harvesting using standard practices.</li> </ul>
<b>Processing and Value Addition</b>	<ul style="list-style-type: none"> <li>• Jammu Kashmir Horticultural Produce marketing and Processing Corporation (JKHPMC)</li> <li>• Farmer Producer Clusters</li> <li>• FPO Parks</li> <li>• Private Processing Industries</li> <li>• Startups</li> </ul>	<ul style="list-style-type: none"> <li>• After harvesting using good harvesting practices, primary processing to be done at the farmer cluster level.</li> <li>• Value addition of the produce upto the level of Cleaning, Washing, Drying, Trimming. Sometimes may also involve distillation at local level.</li> <li>• Primary processed products to be transferred to FPO park for secondary processing.</li> <li>• Extraction of essential oil (Hydro-distillation, Compression, diversified use of active ingredients in soaps, perfumes, mists, creams etc.</li> <li>• Isolation of active ingredients to be done for direct exports if required.</li> <li>• Formation of product line, Packaging of diversified products to be done under product development.</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• Quality Council of India (QCI)</li> <li>• National Medicinal Plant Board</li> <li>• Organic Certification</li> <li>• FPO Parks</li> </ul>	<ul style="list-style-type: none"> <li>• Verification of our product line with the standard operating procedures and guidelines for production of plant produce for the purpose of certification by Ministry of Ayush.</li> <li>• Conform to the guidelines with respect to quality control and shelf life of the produce.</li> </ul>



	<ul style="list-style-type: none"> <li>• IIIM, Jammu (Technical Support)</li> <li>• SKUAST Kashmir (Technical Support)</li> <li>• SKUAST Jammu (Technical Support)</li> </ul>	<ul style="list-style-type: none"> <li>• Process each product for certification with National Medicinal Plant Board (NMPB), Ministry of Ayush, Government of India.</li> <li>• Process for Certificate of Pharmaceutical Product (CoPP) granted as per WHO-GMP Certification Scheme by Central Drugs Standard Control Organization</li> </ul>
<b>Packaging and Marketing</b>	<ul style="list-style-type: none"> <li>• Jammu Kashmir Horticultural Produce marketing and Processing Corporation (JKHPMC)</li> <li>• FPO Parks</li> <li>• Food Safety and Standards Authority of India (FSSAI)</li> <li>• e-Charak</li> <li>• J&amp;K Medicinal Plant Board</li> </ul>	<ul style="list-style-type: none"> <li>• Choose the appropriate, durable and economic packing units for efficient logistics.</li> <li>• Select the best packing material that is attractive durable and of international standards.</li> <li>• Label the product with the product details and all the required information as per guidelines of Ministry of Ayush for certification.</li> <li>• Explore the best and cost effective logistics.</li> <li>• Create clean and temperature regulated storage facilities in case the product requires such facilities.</li> <li>• Establish links with the industry that require raw products, semi-processed products semi-finished products for diversification of sales.</li> <li>• Digital marketing platform to be set up with a tie up with financial institution for payment gateway.</li> <li>• Promotional activities within state, outside state and abroad to be carried out by establishment of display and sale stalls in exhibitions, trade fairs etc.</li> </ul>
<b>Capacity Building</b>	<ul style="list-style-type: none"> <li>• SKUAST Kashmir</li> <li>• SKUAST Jammu</li> <li>• Directorate of Agriculture Kashmir</li> <li>• Directorate of Agriculture Jammu</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness and sensitization programs in each zone.</li> <li>• Capacity building of farmers/rural youth for each stage of value chain including land preparation for nursery, nursery practices of MAPs, Irrigation, weeding, hoeing, transplantation, harvesting, primary processing etc.</li> <li>• Visit of subject matter experts from Department and twin Universities of SKUAST-K to foreign centers of excellence for skill enhancement.</li> <li>• Skill up graduation of entrepreneurs through advanced programs.</li> </ul>
<b>Research and Development</b>	<ul style="list-style-type: none"> <li>• SKUAST Kashmir</li> <li>• SKUAST Jammu</li> <li>• IIIM, Jammu (Technical Support)</li> </ul>	<ul style="list-style-type: none"> <li>• Site suitability for specified medicinal and aromatic crops.</li> <li>• Renovation of existing facilities at SKUAST-K.</li> <li>• Establishment of Centre of Excellence in Herbal Technology at SKUAST-K.</li> <li>• Standardizing package of practices for commercially important species.</li> <li>• Characterization and conservation of genetic resources.</li> <li>• Bioprospecting plants and their constituents for various biological activities in vitro and in vivo techniques.</li> <li>• Processing and value addition protocols.</li> <li>• Exploration for identification of new and useful bioactive compounds.</li> <li>• Identification and selection of best germplasm.</li> <li>• Bioinformatics and biostatistics.</li> </ul>

## 6. PROMOTION OF APICULTURE:

S.No	Activity	Pattern of Assistance	Operational Guidelines to be Adopted	Methodology
A	<b>Research &amp; Development</b>	100% in Public Sector	-----	Research shall be conducted by the concerned Scientist of SKUAST J/K on Oilseed crops.
<b>B</b>	<b>Production and Growth</b>			
1	Est. of bee colonies to beneficiaries	50-80%	MIDH/KVIC	A unit of 50 Colonies (in cluster), shall be distributed to farmers by the extension functionaries
2	Strengthening of Existing Beekeeping Units	40%	MIDH	Bee hives/bee colonies and accessories shall be provided to bee keeper by the extension functionaries
3	Distribution of Specialized bee keeping equipments	40%	MIDH	Equipments shall be provided to bee keeper by the extension functionaries
4	Setting of GIS Labs for monitoring & traceability	100%	NBHM	It shall be established one in each division for traceability and monitoring of bee flora / bee colonies to execute the migration schedule and easy accessibility of natural flora
5	Promotion of Plantations, Bee Flora/ Pollination Gardens	100%	NBHM	The intervention shall be executed by the Agriculture Department in Coordination with Department of Forest
6	Customized Hiring Centers for pollination	50%	SMAM	CHCs shall be established at the location to be identified by the extension functionaries of Agriculture Department. The DBT shall be ensured under the component.
7	Incentives on migratory Bee keeping (for 50 colonies for max distance 300 km)	50%	CAPEX	Incentive shall be provided to the beekeepers to promote the migration for maximum harvest
8	Bee Keeping equipment manufacturing units	50%	NBHM	It shall be established in each district for easy availability of Bee Keeping equipment. DBT shall be ensured under the component.
<b>C</b>	<b>Post Harvest Management (PHM)</b>			
1	Setting of Center of Excellence	100%	NBHM	CoE shall be established in Jammu District by the Agriculture Department in collaboration with SKUAST-J/K and NBHM
2	Honey Collection/Storage /marketing/information /technical centres	50%	NBHM	It shall be established by the farmer in consultation of Agriculture Department. The machinery and processing facilities shall be

				installed by the farmer on his own choice and DBT shall be ensured under the component.
3	Honey Processing units	50%	NBHM	It shall be established by the farmer in consultation of Agriculture Department. The machinery and processing facilities shall be installed by the farmer on his own choice and DBT shall be ensured under the component.
4	Setting Mini Honey Testing Lab	100%	NBHM	It shall be established one in each division at identified location in collaboration with the SKUAST-J/K
5	Establishment of facilitation centers for migratory beekeepers	50%	NBHM	It shall be established by the farmers at identified location in coordination with the Agriculture Department.
6	Setting up of Api-therapy centres	100%	NBHM	It shall be established one in each Division on PP mode by the Agriculture Department in collaboration with SKUAST-J/K and NBHM
<b>D</b>	<b>Capacity Building</b>			
1	Strengthening of DCTC	100%	CAPEX	The existing DCTC in the district shall be strengthened and modernized with modern equipment and practices for training cum demonstration purpose
2 (I)	Conducting Trainings/ Exposure Visits farmers/ beekeepers (@250/per person per day)	0.0025	Agriculture Extension (ATMA)	Training shall be provided by the Field staff of Agriculture Department/ KVK/ Resource person of SKUAST/NBHM
2(II)	Officers Trainings/ Exposure Visits (@1000/per person per day)	0.01		Officers shall be deputed to premium institutes of neighboring states to apprise them about modern technology
3	Exhibition/Conferences /Workshop	100%		Exhibition shall be organized by the Department with the support of KVK/SKUAST and other stake holders
4	Formation of SHGs for beekeepers	100%		SHGs shall be formed having 10 to 20 members and shall be formulated by the Agriculture Department with the support of PRI
<b>E</b>	<b>Strengthening &amp; Modernization of <i>Apis cerena</i></b>			

1	Identification & Formation of Cluster/SHGs	100%	CAPEX	<p><i>Apis cerana</i> the Native Bee shall be shifted from logs to Modern hives by the Department of Agriculture to strengthen the bee strength of such colonies.</p>
2	Distribution of Modern Bee boxes through Cluster/SHG	100%		
3	Distribution of modern tool kits & accessory (1000/cluster)	100%		
4	Advance training for Queen rearing/ bee breeding/nucleus stock (@1000/per person per day)	100%		
5	Trg. Progm/ workshop/ Seminar/ Honey Festival	100%		
6	Organic certification	100%		
7	PHM & Value addition (Honey & other beehive products collection, trading, branding, marketing )	100%		

## 7. TECHNOLOGICAL INTERVENTIONS TO STRENGTHEN SERICULTURE IN UT OF J&K:

The Department continues to offer support through various Developmental schemes both under UT Capex and Centrally Sponsored Schemes to uplift socio-economic status of Sericulturists at the grass root level. It has resulted in better profile and beyond that a host of measures are in pipeline for upliftment of all stakeholders through a number of farmer/entrepreneur friendly schemes. The Department is contemplating to provide various benefits so as to improve production/productivity under various beneficiary oriented schemes. In this aspect the Centrally Sponsored Scheme, SILK SAMAGRA is being implemented by the Department with the support of the Central Silk Board, MoT, GoI. The SILK SAMAGRA is an integrated scheme for uplifting the Silk industry which has been able to maintain and strengthen the Sericulture activities in the Country. The SILK SAMAGRA-1 has been successfully implemented and now SILK SAMAGRA-2 is to be implemented in UT of J&K.

### SILK SAMGRA IN J&K

In order to tap the maximum sericulture potential and achieve the vision of production of 1500MT quality Bivoltine cocoons required for production of 210 MT of quality raw silk, it is felt to conceive and formulate short term and long term strategies and harvest the sericulture potential of productive sericulture areas. Keeping in view the availability of infrastructure and production statistics, it is perceived that there is need for further development of sericulture activities in both Jammu & Kashmir Divisions through cluster approach. The impact of each approved cluster project under Silk Samagra-2, is expected to augment;

- Mulberry plantation wealth in the project areas.
- Intake capacity of silkworm seed at farmers level.
- Quality Cocoon production/productivity.
- Employment generation.
- Capacity building of all Stakeholders.

The UT specific guidelines under Silk Samagra are detailed below:

#### **Operational guidelines for general selection of beneficiaries under centrally sponsored schemes for Pre-Cocoon Sector:**

The general selection of beneficiary for consideration under a particular scheme should be as per the following criteria;

- ❖ The beneficiary should be a bonafide Rearer and enrolled with Sericulture Development Department through the concerned Zonal/Circle Sericulture Officer in whose area the beneficiary falls.
- ❖ He /She should be practicing Sericulture continuously from the last many years. Always the longest period of occupation as Cocoon grower along with other production parameters will be considered. However, if there is no rearer (s) available in a particular area being a new project area or the available rearer(s) of that particular area has/have availed the scheme, the new rearer(s) can be taken subject to approval of the Additional Director Sericulture of the Division on recommendations of the District level committee.
- ❖ The Land holdings of the Beneficiary available for Mulberry Plantation and number of Mulberry Plants available need to be taken in to consideration.
- ❖ Preference to be given to women beneficiary(ies), low income individuals particularly BPL/SC/ST categories or as per the project requirements.
- ❖ The concerned Panch /Sarpanch/Counselors/Ward corporators/ DDC members/ Chairman DDC councils whichever available be informed about project beneficiaries for involving Public representatives.

- ❖ Where two beneficiaries will be from same Income/age/caste/sex groups, the preference be given to highest average on Crop production & productivity for last minimum 3 to 5 years.

## **1. Support for mulberry plantation development:**

### **Operational guidelines for the scheme:**

- ❖ Beneficiary should be conducting Silkworm rearing continuously for some years or a fresh beneficiary can also be considered depending upon the requirement.
- ❖ Beneficiary shall execute an agreement with the department as per the approved format, wherein the beneficiary shall give an undertaking on a judicial paper of Rs. 100/- duly attested by 1 class magistrate, that he/she shall maintain the plantation up to minimum 10 years & shall use Mulberry foliage to conduct silkworm rearing on the raised plantation
- ❖ Beneficiary shall have to keep pits of Size 2 ft x 2ft x 2ft. ready at least 10 to 15 days prior to the plantation programme and report of pits being ready with photographic/video evidence to be submitted by the concerned Zonal /Circle officer well in advance to the DDO/higher quarters.
- ❖ Cost of Mulberry plants @ Rs 5/- per plant shall be collected from the beneficiary in advance by the DDO & remitted as revenue.
- ❖ Beneficiary Share shall be considered in shape of Labour component for carriage of plants and other allied works etc.
- ❖ The self production of leaves needs to be improved by the Beneficiary after taking the assistance.
- ❖ The beneficiary must raise Mulberry plantation on tree mode preferably in cluster mode ever possible and nearest to rearing house.
- ❖ Assistance amount shall be given in 02 installments, disbursed to the beneficiary through DBT mode only and after proper verification by the Designated committee.
- ❖ Each and every installment shall be released only after the required and related works are completed by the beneficiary.
- ❖ In case the beneficiary fails to maintain the plantation / Conduct silkworm rearing, the entire amount shall be recovered from him/her with interest of 5% on the assistance amount of Rs15000/-.
- ❖ Gap filling of 40% is allowed for which no cost of plants is to be recovered from the beneficiary. However gap filling of more than 40% plantation by the beneficiary shall require depositing of Rs 5 per Plant by him/her. No monetary benefits shall be paid for any gap filling.

## **2. Assistance for construction of rearing house Model II (460 Sq. Ft.):-**

### **Operational guidelines for the scheme:**

- ❖ Beneficiary shall be selected as per the approved Guideline.
- ❖ Beneficiary Need to be conducting Silkworm rearing continuously for the last minimum 8 years, the max no. of rearing years shall be taken for consideration of the beneficiary for assistance under Rearing house. The Rearing house shall be constructed by the beneficiary immediately from the date of sanction in the form of formal individual letter to be given by the Concerned DDO and completed within 06 months
- ❖ Rearing House need to be away from the dwelling houses as per the approved designs to avoid contaminations/diseases .
- ❖ The floor and inside walls shall be plastered.
- ❖ The Rearing house beneficiary shall make provisions for maintaining the temperature and humidity for conducting effective disinfection.
- ❖ Provision shall also be made to make the rearing house air tight for proper disinfection at the time of disinfections.
- ❖ Adequate cleaning arrangements need to be carried by the beneficiary.
- ❖ Rearing house shall accommodate three or four tiers of rearing racks.
- ❖ Beneficiary shall undergo an agreement with the Department as per the approved format, that he/she shall continue to conduct silkworm rearing at least for another 10 years. For this purpose, an affidavit (Rs 100) as per the approved format shall have to be furnished by the beneficiary duly attested by 1<sup>st</sup> Class Judicial Magistrate.

- ❖ In case he/she or his family stops silkworm rearing before the prescribed period, the amount /material provided shall be recovered from the beneficiary for which a notice needs to be issued by the concerned Zonal/Circle officer 15 days before taking the action.
- ❖ The production/ productivity need to be improved by the Beneficiary after taking the assistance /facility is extended to the beneficiary.
- ❖ The minimum rearing two oz of crop per beneficiary is mandatory in a year after availing the Rearing House.
- ❖ Assistance amount need to be given in installment & distributed to the beneficiary through DBT mode only by the DDO.
- ❖ Each and every installment shall be released only after the proper verification by the designated Departmental committees.

### 3. Supply of rearing appliances:

Sericulture farmers/ rearers are supported with appropriate technologies to begin the silkworm rearing activity for the production of quality bivoltine cocoons. They are provided with a set of rearing and farm appliances as tabulated below:

S.No	Rearing Equipments
1.	G.I tub for preparing disinfection solution
2.	Knap Sack Sprayer
3.	Solar Lantern
4.	Rearing Shelf Stand
5.	Rearing mats (Bed Supporting)
6.	Thermometer
7.	Iron sigries
8.	Bed Cleaning Nets
9.	Branch Cutter
10.	Leaf carrying crates
11.	Mountages (plastic collapsible)

### 4. Mulberry Chawki rearing Centers (CRC):

Main objective of CRC is to promote rearing and supply of chawki reared silkworms to the farmers for robust health and enhancing productivity of bivoltine cocoon crops. Each CRC will cater 70-100 farmers depending upon brushing capacity of the farmers/batch. A provision of Rs.1200 lakh to cover 100 CRCs is proposed. Unit cost will include building infrastructure construction cost (Rs. 12.00 Lakh) with specification of 42 ft ×30 ft to rear 5000 DFLs/ Batch as per the approved design. The other details will include establishment of chawki garden for ready supply of chawki leaves and other required equipments for establishment of CRC.

### 5. Construction of Grainage building:

The production of commercial seed in silkworm seed production centers requires technical specifications for following strict norms. The quality silkworm seed production is possible only in a grainage building (10000 sft) for which support is required. The building infrastructure and the required equipments cost Rs. 300 lakhs for one grainage.

### 6. Strengthening of post cocoon sector:

The industrial part of converting cocoons into product forms is covered under post cocoon sector and involves the activities like silk reeling, twisting, weaving, dyeing, printing etc. these activities in turn support the enterprises of machine and byproduct utilizations. Thus providing employment for different work forces. Strengthening of post cocoon sector with budgetary provisions of Rs. 200 lakh shall include the establishment of latest reeling machinery with CATD (Computer Aided Textile Designing) facility.

## 8. PROMOTION OF NUTRI CEREALS (MILLETS): Operational Guidelines of CSS -Food& Nutritional Security (Nutri-Cereals) to be adopted.

S.no.	Component	Pattern of Assistance	Methodology	Collaboration
1	Distribution Of HYV Minikit	@ 100% Subsidy	Distribution through PRI member	<ul style="list-style-type: none"> <li>• Agriculture Department</li> <li>• JKHPMC Department</li> <li>• SKUAST-J/K</li> <li>• KVK</li> <li>• Traders</li> <li>• Agencies</li> <li>• CBBO</li> <li>• Farmers</li> <li>• Retailer</li> <li>• Wholesale</li> <li>• CIG/FIG</li> <li>• Unemployed Youth</li> </ul>
2	Cluster Demonstration	@100% Subsidy	Implemented through FPO/SHG/WFSG /CBO/Farmer in contiguous area	
3	Distribution of Nutritive Variety seed	@ 100% subsidy	Distribution through PRI member to the progressive farmers	
4	Certified Seed Production of HYV Seeds at Departmental Farm/seed village Less than 10 years old Varieties	Rs.3000/qtl or 50% of cost whichever less	Departmental SMF/Seed Village Programme	
5	INM (Micro Nutrient)	Rs.500/ha or 50% of cost whichever less	Distribution through PRI & in only millets growing area	
6	INM (Bio-Fertilizer)	Rs.300/ha or 50% of cost whichever less		
7	IPM (Bio-pesticide)	Rs.500/ha or 50% of cost whichever less		
8	IPM (Bio-Herbicide)	Rs.500/ha or 50% of cost whichever less		
9	Millet Mills	60% subsidy upto max. Rs 5.40 lakh/unit for marginal/SC/ST farmers. For other beneficiaries 50% or Rs.4.50 lakh/unit	Millet growing, Progressive and innovative youth farmer /SHG/WFSG/Cooperatives Societies will be preferred through active involved of PRI members	
10	Promotion of Millet Restaurants for providing employment to the youth	Rs.1.00 Lakh or 50% cost whichever less	Progressive and innovative youth farmer/SHG/WFSG/ Cooperatives Societies will be preferred through active involved of PRI members	
11	Road show Millet campaign & Capacity Building	Rs. 2.00 Lakh per Event	Capacity building of the stakeholder shall be done with the collaboration of SKUAST	
12	Varietal Characterization/ Establishment of Seed hubs/Branding & Commercialization/ Entrepreneurship development		Standardization of practices commercialization, branding, e-marketing certification etc will be done in collaboration with SKUAST scientist.	



## 9. Farm Mechanization for Resource Use Efficiency in Hill Agriculture:

Intervention	Guidelines
<b>Improved Mechanisation Level and Farm Power</b>	SMAM (Sub Mission on Agriculture Mechanization) guidelines shall be followed
<b>Infrastructure Development</b>	
<b>Machinery, Implements and Equipments</b>	SMAM (Sub Mission on Agriculture Mechanization) guidelines shall be followed
<b>Custom Hiring Centres</b>	SMAM (Sub Mission on Agriculture Mechanization) guidelines shall be followed. However, Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>Farm Machinery Banks</b>	SMAM (Sub Mission on Agriculture Mechanization) guidelines shall be followed. However, Farmer Producer Organisations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>AI and Precision Centres</b>	DIGITAL AGRICULTURE MISSION (DAM) guidelines shall be followed. However, Farmer Producer Organizations, Self Help Groups, Joint Liability Groups and Co-Operatives will be given Preference.
<b>Capacity Building</b>	RKVY (Rashtriya Krishi Vikas Yojana) guidelines shall be followed.

## 10. PROMOTION OF MUSHROOM CULTIVATION:

S.No	Interventions/Components	Unit	Unit Cost (lakh)	Pattern of Assist.	Scheme Guidelines	Phy.	Fin. (Lakh)	Methodology
<b>A</b>	<b>RESEARCH &amp; DEVELOPMENT</b>							
1	Introduction & promotion of new Mushrooms & their strains with specific emphasis on medicinal mushrooms. Standardization of locally available substrates & conditions for optimal growth, value added products development	Lakh		100% of cost	Public Sector		2.10	Research and Establishment
<b>B</b>	<b>PRODUCTION &amp; GROWTH</b>							
1a	Establishment of Pasteurized Compost making Unit (capacity 35 MT in Public Sector )		100.00	100% of cost	Public Sector	14	14.00	To be established in potential area in DCTC where pasteurized units are not existing
1b	Establishment of Pasteurized Compost making Unit (capacity 15 MT Private sector)	No.	50.00	30% of the cost	Private Sector (NHB Scheme)	12	6.00	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers
2a	Controlled conditioned cropping units( 40ft x 18ft x16 ftCR & 15ftx13ftx12ft PA)Public Sector		30.00	100% of cost	Public Sector	16	4.80	To be established in potential area in DCTC where controlled cropping rooms are not existing
2b	Establishment of controlled conditioned cropping room 40ft x 18ft x16 ft		20.00	40% of the cost	Private sector (MIDH)	56	11.20	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
3a	Establishment of Spawn production Lab 20 MT Public Sector	No.	150.00	100% of cost	Public Sector	4	6.00	To be established in potential area in DCTC where lab are not existing & great potential of Mushroom
3b	Establishment of Spawn production Lab 2 MT Private sector	No.	15.00	40% of the cost	Private sector(MI DH)	6	0.90	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
4	Mushroom Sheds growing 16x25x12 ft	No	3.00	50% of the cost	(Capex)	300	9.00	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
5	Distribution of Pasteurized spawned compost bags of 10kg of size 1.5x2 feet	No.	0.0012	50% of the cost	Private Sector (Capex)	150000	1.80	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.(Not More Than 100 bags per beneficiary
<b>C</b>	<b>PHM, VALUE ADDITION &amp; MARKETING</b>							

1	Mushroom Canning Unit (capacity 800 kg per day)	No..	15.00	50% of the cost	Private Sector (NHB)	4	0.60	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
2	Solar dryer	No.	0.20	Rs 10000 per unit	Private Sector (Capex)	60	0.12	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
3	Providing Packaging material, cap sealer, packaging machine jar ,crates. Weighing machine on subsidy @ 6000/- per grower	No.	0.12	Rs 6000/- per unit	Private Sector (Capex)	150	0.18	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers
4	Revolving Fund for promotion of WSHG @Rs 10000 per group	No.	0.1	100% of cost	Private Sector (ATMA)	300	0.30	Preference will be given to FPO, women Self Help Group, Mushroom cluster area and progressive growers.
<b>D CAPACITY BUILDING</b>								
1	Exposure Visit of mushroom growers outside the state for 5 days	No.	Rs.1000 / grower / day which includes transportation, boarding and lodging of farmers	100% of cost	Private Sector (ATMA)	600	0.30	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
2	Training of mushroom growers within the State	No.	Rs.1000/- per grower per day which includes transportation, boarding and lodging of farmers(CSS)	100% of cost	Private Sector (ATMA)	1800	0.18	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
3	Training of mushroom growers within the district	No.	Rs.400/ grower / day which includes transportation, boarding and lodging of farmers for residential training(CSS)	100% of cost	Private Sector (ATMA)	3000	0.12	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
4	Training of mushroom growers within the district	No.	Rs.250/grower / day (CSS)	100% of cost	Private Sector (ATMA)	3000	0.075	Preference will be given to FPO, Self Help Group, Mushroom cluster area and progressive growers.
<b>PROJECT MANAGMENT COST</b>								
E	Project Management Cost				Public Sector		128	For Project Implementation
<b>Grand Total</b>							<b>58.955</b>	

## 11. PROMOTION OF OIL SEEDS:

S.No	Item/Component	Rate of Assistance	Operational guidelines to be adopted	Methodology
1	R & D	100% in Public Sector	—	Research shall be conducted by the concerned Scientist of SKUAST J/K on Oilseed crops.
2	<b>Production and Growth</b>			
A	<b>Distribution of seeds</b>		National Mission on Edible Oils – NFSM/SVP	<b>Assistance on seed of all Oilseeds crops shall be provided to the farmers through own outlets/dealers by extension functionaries.</b>
i	Rapeseed and Mustard (HYV)	Rs.4000/- per qtl or 50% of cost, whichever less		
ii	Rape Seed and Mustard (Hybrid)	Rs.8000- per qtl or 50% of cost, whichever less		
iii	Sesamum	Rs.8000- per qtl or 50% of cost, whichever less		
B	<b>Production of Seed</b>		National Mission on Edible Oils – NFSM	
i	Purchase of Breeder Seed	100% Subsidy		Breeder seed shall be obtained from ICAR/ SKUAST– J/K, Research Institute etc. for further multiplication at SMF.
ii	Production of Foundation Seed	50% of Cost subject to maximum Rs. 2500 /qtl		Assistance will be provided for all varieties released during the last 10 years. 75% of the subsidy amount is meant for farmers and 25% for the seed producing agencies/Department for meeting expenditure towards certification & production etc. The C/F seed shall be produced at Farmer field through Extension Functionaries
iii	Production of Certified Seed	50% of Cost subject to maximum Rs. 2500 /qtl		
C	<b>Minikits</b>	100% Subsidy		

				the farmer. A cluster covering 25 ha area under R&M and 10 ha area under sesamum shall be developed.
<b>D</b>	<b>Cluster Demonstration</b>			
i	Sesamum	Rs. 3000 / ha		50% of the cost of critical inputs like seed, seed treatment, micronutrients, organic/bio agents, organic/bio fertilizers, eco friendly light traps etc. shall be provided. Demonstrations should be organized in cluster mode with a contiguous area of 10 ha in a village/block. For promotion of Beekeeping an assistance to the farmer @ Rs. 2000/-ha for hiring of bee colonies from bee keepers shall be provided for R&M. One demonstration will be allowed to one farmer with a ceiling of one ha under each crop. DBT shall be ensured under the component.
ii	Rapeseed and Mustard with bee keeping	Rs 5000 / ha		
iii	Linseeds	Rs. 3000 / ha		
<b>E</b>	<b>Frontline demonstration</b>			
i	Rapeseed and Mustard	Rs. 6000 / ha	National Mission on Edible Oils – NFSM/	The FLD shall be organized by KVK at farmer's field. The maximum area under FLD will be one ha per farmers under each crop. The size of FLD plot will be of one ha but not less than 0.4 ha and financial assistance will be on pro-rata basis. New varieties less than 10 year old are only taken up in FLDs. Cluster approach shall be adopted. NFSM guidelines shall be adopted during implemented the programme.
ii	Sesame	Rs.5000/ ha		
<b>F</b>	<b>Production Inputs</b>			
i	Distribution of Gypsum /Pyrite/Lime/SS P, etc	50% of the cost subject maximum to Rs. 750/- ha	National Mission on Edible Oils – NFSM/	The support for non seed component i.e production inputs viz Gypsum, Bio-fertilizer & PP chemicals

ii	Supply of Rhyzobium/PS B/ZSB/Azatobactor/ Mycorrhiza culture	50% of the cost subject maximum to Rs. 300/-ha		will be provided to the farmers through Department of Agriculture as proposed under the project. DBT shall be ensured under the component.
iii	PP chemicals/ Insecticides/biopesticides/weedicides/bioagents etc	50% of the cost subject maximum to Rs. 500/ ha		
<b>G</b>	<b>Machinery and Equipments</b>			
i	Rotavator/Power Weeder/Seed Drill/ Multi Crop Planter/ Multi Crop Thresher/ Groundnut digger etc.	50% of the cost subject maximum to Rs.75000 / unit	NFSM/ Agriculture Mechanization	50% assistance shall be provided to the beneficiaries on purchase of machinery of their own choice through extension functionaries. DBT shall be ensured under the component.
iii	Power Operated Spray Pump	50% of the cost subject maximum to Rs.10000 / unit		
<b>H</b>	<b>Irrigation Infrastructure</b>			
i	Deep Bore Well (on pro-rata basis)	50% of the cost subject maximum to Rs.2.00 lakh /- unit	RKVY	Borewell shall be installed at tail end area of border areas on prorata basis by the staff of Agriculture department at identified areas & these borewell shall be integrated with rain gun system to increase the WUE. DBT shall be ensured under the component.
ii	Sprinkler / Rain Gun System	55% of the indicative cost subject to maximum Rs. 0.374 Lakh/Unit	PMKSY (PDMC)	
<b>3</b>	<b>Post Harvest Management</b>			
i	Oil Mill with filter press	50% of the cost subject maximum to Rs.1.20 lakh /- unit	Agriculture Mechanization	Oil extractor units shall be provided to the FPOs by e Agriculture Department for processing & value addition of edible oils. DBT shall be ensured under the component.
ii	Extractor Oil Seed	50% of the cost subject maximum to Rs.1.50 lakh / unit		
iii	Branding & Marketing	100% in public sector and 50% in private sector	-	

<b>4</b>	<b>Human Resource Development</b>			
i	Training of Farmers	Rs. 24000 per training programme	National Mission on Edible Oils - NFSM	Financial assistance of Rs. 24000/- per training for a batch of 30 farmers for 2 days and @ Rs. 400 per participants. Training material @ of Rs. 2500/- per training, Dormitory & transport expenses @ 4500/- per training, Honorarium to SMS/Scientist @ Rs. 2000/- for 8 lectures & refreshment @ Rs. 15000/- per training for 30 farmers for 2 days. The training shall be organized by the Department in coordination with SKUAST.
ii	Exposure visit	Rs 1250/farmer/day	Agriculture Extension (ATMA)	The farmers shall be deputed to the premium institutes of neighboring districts to get them acquaint with good agricultural activities & modern technology for its adoption by them & fallow farmers. Extension staff of agriculture department shall make the arrangement for the purpose.
iii	Tilhan Mela	Rs. 4.00 Lakh per district		It shall be held in all the districts of J&K UT by the Agriculture Department for show casing the modern technology, inputs & services.
iv	Printing of Leaf lets	Rs. 1.00 Lakh per district	Agriculture Extension (ATMA)	It shall be printed by the concerned Agriculture officer of the department & distributed among the farmers by extension functionaries during different occasion & gathering of farmers.
v	Training of Officers	Rs. 36000 per training programme	National Mission on Edible Oils - NFSM	Financial assistance of Rs. 36000/- per training for a batch of 20 officers for 2 days and @ Rs. 900 per participants per day. Training material @ of

				Rs5000/- per training, Lodging & transport expenses @ 15000/- per training, Honorarium to SMS/Scientist @ Rs. 4000/- for 8 lectures & refreshment @ Rs. 12000/- per training for 20 officers for 2 days. The training shall be organized by the SKUAST.
<b>vi</b>	Division Level Exhibition cum conference	Rs. 3.00 Lakh per Exhibition cum conference	Agriculture Extension (ATMA)	It shall be held by the Agriculture Department for show casing the modern technology, inputs & services.



## 12. FORMULATION OF 300 FPOS:

S. No.	Particular	Purpose of fund	Pattern of Assistance	Scheme Guidelines	Cost of establishing 01 FPO	Cost of establishing 300 FPOs
1	CBBO	Handholding support	100%	Center Sector Scheme for Formation and Promotion Of 10k FPO	0.25	75.00
2	FPO	Management Cost	100%		0.18	54.00
3	Equity Share	Matching Share	50%		-	12.00
<b>Sub- Total</b>			-	-	<b>0.43</b>	<b>141.00</b>
4	Implementing Deptt.	Monitoring & Evaluation [MIS]	Additional CAPEX Budget	-	0.005	1.50
<b>Grand Total</b>			-	-	<b>0.435</b>	<b>142.50</b>

### **13. ADOPTION AND PROMOTION OF INTEGRATE FARMING SYSTEM (IFS)/ INTEGRATED LIVELIHOOD SYSTEMS(ILS) IN UT OF J&K**

- a. The IFS programme shall be launched in Farmers' Participatory mode in 80: 20 fund sharing basis between UT Government and farmers share.
- b. The beneficiaries shall sign an MOU for co-operating with the implementing agency and maintain all the records of input –output used in the IFS selected farm etc. The implementing units at the grass route level will closely monitor the data recorded by the end user and will authenticate the data after verifying. Both the farm universities within their respective area of operations will provide the format of recording the data/ base line survey/ impact analysis etc and will ensure the free flow of technologies concerning IFS approach of farming during these five years.
- c. A consultant for the program shall be hired by farm universities as per the stipulated rules for hiring of such services.
- d. Mapping and Profiling of IFS shall be undertaken and both the concerned IFS units of the two farm universities and the executing agencies at the grass route level. Capacity building and training to selected beneficiaries shall be done at the two farm universities. SKUAST-Jammu may take lead in this regard, as the live IFS model proposed for adoption exists at Chatha campus of SKUAST-Jammu.
- e. The incentive issued shall be one time and shall be on those farm components, which do not exist. But the free flow of technologies w.r.t improved farming practices, processing/ value addition and marketing shall be ensured and enhanced during the five years. In the fourth and fifth year the impact analysis shall be undertaken. The funds allotted against each IFS intervention in the form of critical inputs are interchangeable depending upon the existing IFS situation and finalisation of IFS interventions based on survey and will vary from farm to farm.
- f. 20-25 per cent modification of the IFS model of 0.5 ha proposed in the technical programme is permissible depending upon the location specific agro-ecosystem and potential of the enterprises to be included. Wherever, the area is rainfed and fishery is not possible. the land allotted under this enterprise shall re-allotted to Horticulture block.
- g. The beneficiaries shall be grouped on e-platform for close interaction with implementing and collaborating agencies and digitalized and th beneficiary farmers shall be connected with the FPOs for better marketing of their market surplus which shall be ensured by the Nodal officers (Director Agriculture Jammu and Kashmir, respectively)
- h. Those beneficiaries shall be selected who fall with 0.5 or -0.5 ha land holding
- i. The Nodal Officer will ensure the distribution of funding to various stakeholders and regular monitoring at the end users level and other administrative support falling in their purview.
- j. The expenditures shall be undertaken after full filling all the codal formalities existing in the respective executive agencies.

## 14. PROMOTION OF COMMERCIAL FLORICULTURE:

<p><b>Project/Scheme for Cluster Based Floriculture Entrepreneurship for employment generation in UT of Jammu and Kashmir</b></p>
<p><b>Strengthening of existing nurseries</b></p>
<p><b>Eligibility :</b> The assistance shall be given from UT- CAPEX to Functional /Registered growers/nursery unit holders with a minimum land holding of 0.1 ha to a maximum of 148 m<sup>2</sup> polycarbonate green-house and one seed germinator per nursery unit.</p> <p><b>Pattern of assistance :</b> Assistance for polycarbonate green-house shall be 80 ( CAPEX share) : 20 ( farmer share) whereas for germinator 50 ( CAPEX share) : 50( farmer share).</p> <p><b>Monitoring :</b> A Divisional level monitoring committee constituted by Director Agriculture/Director Floriculture shall physically check the installation of the infrastructure on beneficiaries field . Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee.</p>
<p><b>Area expansion under small nurseries</b></p>
<p><b>Eligibility :</b> Growers registered with Department of Floriculture Jammu/Kashmir with a minimum of 0.1 ha land holding</p> <p><b>Pattern of Assistance :</b> As per the MIDH norms. Only Growers receiving Shade house are eligible to receive assistance for Vermicompost unit ( Size: 3 x 8 x 2.5 ft), Integrated post harvest management (Packhouse/farm cultivation unit ) ( <b>refer to Action plan</b>)</p> <p><b>Monitoring :</b> District level monitoring committee constituted by by Chief Agriculture officer shall physically check the installation of the infrastructure on beneficiaries field. Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee.</p>
<p><b>Post Covid Revival of Sick floriculture units</b></p>
<p><b>Eligibility :</b> Registered growers who have intact tubular frame structures erected with help of subsidy component from the Government</p> <p><b>Pattern of Assistance :</b> Polythene for the structures under UT CAPEX- 80 ( CAPEX share) : 20 ( farmer share). Plant material for the restored units as per the MIDH norms ( refer to Action plan)</p> <p><b>Monitoring :</b> District level monitoring committee constituted by by Chief Agriculture officer shall physically check the installation of the infrastructure on beneficiaries field. Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee. The committee shall also designate 4-6 Quality Plant material Suppliers ( within or outside the UT) following all codal formalities. The growers shall have a choice to purchase plant material from any of the designated QPM supplier.</p>
<p><b>Protected Cultivation</b></p>
<p><b>Eligibility :</b> Registered growers from a particular designated cluster</p>

**Pattern of Assistance :** The assistance shall be provided under MIDH norms to a maximum of 600 m<sup>2</sup> ( enhancible by 400 m<sup>2</sup> after recommendation by Divisional level Committee) protected area per beneficiary.

**Monitoring :** District level monitoring committee constituted by Chief Agriculture officer shall physically check the installation of the infrastructure , plant material on beneficiaries field. Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee.

**Aggregation :** A Divisional level committee constituted by Director Agriculture shall earmark and map 2-3 clusters ( per Division) for protected cultivation in the designated districts in each Division. **(Refer to Resource Mapping Plan of major Activities as per Target Areas).** The committee shall also designate 4-6 Quality Plant material Suppliers ( within or outside the UT) following all codal formalities. The growers shall have a choice to purchase plant material from any of the designated QPM supplier.

#### **Area expansion under Aromatic Plants ( open)**

**Eligibility :** Registered growers from a particular designated cluster

**Pattern of Assistance :** The assistance shall be provided under MIDH norms to a minimum of 0.2 ha area per beneficiary. Assistance for distillation unit under private sector shall be provided under UT CAPEX @ 80 ( CAPEX share) : 20 ( farmer share). For installing Distillation unit in public sector assistance shall be 100 % . Required number of QPM ( rooted plants of lavender) can be produced at concerned KVKs of SKUAST- J & K for which funds are earmarked in Action plan of the DPR.

**Monitoring :** District level monitoring committee constituted by Chief Agriculture officer shall physically check the installation of the infrastructure , plant material on beneficiaries field. Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee.

**Aggregation :** A Divisional level committee constituted by Director Agriculture shall earmark and map 4-5 clusters for lavender cultivation in the designated districts in each Division. **(Refer to Resource Mapping Plan of major Activities as per Target Areas)**

#### **Area expansion in Loose flowers**

**Eligibility :** Registered growers from a particular designated cluster

**Pattern of Assistance :** The assistance shall be provided under MIDH norms to a minimum of 0.2 ha area per beneficiary. Assistance in terms of inorganic fertilizer ( 100 %) shall be provided to beneficiaries.

**Monitoring :** District level monitoring committee constituted by Chief Agriculture officer shall physically check the planting of loose flowers on beneficiaries field. Subsidy assistance shall be released in DTB mode after receipt of satisfactory report from the committee.

**Aggregation :** A Divisional level committee constituted by Director Agriculture shall map 7-8 clusters in Jammu Division and 2-3 clusters in Kashmir Division for Marigold cultivation in the

designated districts in each Division. (Refer to Resource Mapping Plan of major Activities as per Target Areas).The committee shall also be responsible for arranging quality marigold seed.

#### **Area expansion under bulbous flower production ( open)**

**Eligibility :** Registered growers from a particular designated cluster

**Pattern of Assistance :** The assistance shall be provided under MIDH norms to a minimum of 0.2 ha area per beneficiary.

**Monitoring :** District level monitoring committee constituted by by Chief Agriculture officer shall physically check the planting of gladiolus corms on beneficiaries field. Subsidy assistance shall be relased in DTB mode after receipt of satisfactory report from the committee.

**Aggregation :** A Divisional level committee constituted by Director Agriculture shall earmark and map 2-3 clusters in Jammu Divison and 2-3 clusters in Kashmir Division for gladiolus cultivation in the designated districts in each Division. **(Refer to Resource Mapping Plan of major Activities as per Target Areas)**

#### **Area expansion under annual flower seed production ( open)**

**Eligibility :** Registered growers from a particular designated cluster

**Pattern of Assistance :** The assistance shall be provided under MIDH norms to a minimum of 0.2 ha area per beneficiary.

**Monitoring :** District level monitring committee constituted by by Chief Agriculture officer shall physically check the planting of marigold on beneficiaries field. Subsidy assistance shall be relased in DTB mode after receipt of satisfactory report from the committee.

**Aggregation :** A Divisional level committee constituted by Director Agriculture shall map 2-3 clusters in Jammu Divison and 2-3 clusters in Kashmir Division for gladiolus cultivation in the designated districts in each Division. (Refer to Resource Mapping Plan of major Activities as per Target Areas)

#### **Human Resource Development**

**Eligibility :** Preferably registered growers from a particular designated cluster

**Pattern of Assistance :** The assistance shall be provided under MIDH norms for training and as per the actual for exposure visits

**Monitoring :** District level monitring committee constituted by Chief Agriculture officer shall select the growers from the potential cluster for exposure visits and training for skill upgradation.

**Aggregation :** Trainings and exposure visits shall focus on a particular/designated project activity targetting a cluster with emphasis on building grower skills in post harvest, branding of individual clusters, and enabling MOUs for buyback with with seed companies, market linkage etc.

<b>Development /Strengthening of cold chain /transport</b>
<p><b>Eligibility :</b> Preferably registered growers from a particular designated cluster, Govt. Agency</p> <p><b>Pattern of Assistance :</b> 50 % and 25 % of the earmarked funds shall be utilised for resortation of existing cold storage, refrigerated transport in Kashmir and Jammu Divisions respectively. 50 % and 75 % earmarked funds ( Kasmir and Jammu Divisions respectively) shall be utilized for aqisation and installation of new units with 100 % assistance for public sector and assistance under CAPEX @80 ( CAPEX share) : 20 ( farmer share) for private sector.</p> <p><b>Monitoring :</b> Divisional level monitring committee constituted by Director Agriculture shall select the public sector and private growers from the potential clusters for aqisation and installation</p> <p><b>Aggregation :</b> Aqisation and installation of infrastructure for cold chain shall focus to benefit designated cluster</p>
<b>Mission Management</b>
<p><b>The funds under Mission Management shall be utilized as per the following</b></p> <ol style="list-style-type: none"> <li>1. 20 % on Development of virtual cluster, e-marketting portal for easing marketting and sales realization, Cluster Brand Promotion, assistance in psotharvest and packaging etc.</li> <li>2. 10 % on hiring consulatancy</li> <li>3. 20 % on contingency for cold storage of QPM/out put , Marketting contengencies etc. etc.</li> <li>4. 50 % on other contigent charges</li> </ol> <p><b>Monitoring :</b> A Divisional level committee constituted by Director Agriculture shall be responsible for utilization of funds as per abovebreak-up</p>
<b>Strengthening of existing Tissue Culture Units</b>
<b>Pattern of Assistance : 100 percent as per MIDH norms ( Refer to Action Plan)</b>
<b>Development &amp; Transfer of Technology (Ornamental plant Nursery Production and skill up-gradation )</b>
<b>Pattern of Assistance : 100 percent as per MIDH norms ( Refer to Action Plan)</b>
<b>Development of Model Floriculture Farm at SKUAST-K</b>
<b>Pattern of Assistance : 100 per cent as per CAPEX ( Refer to Action Plan)</b>

## **15. DEVELOPMENT OF RAINFED AREAS OF J&K.**

### **METHODOLOGY OF PROJECT IMPLEMENTATION**

The methodology and activities are envisioned and selected to appropriately address the 3Es i.e. Ecology, Economics and Equity for getting tangible outcomes in a holistic manner. The farmers in the Pilot Project sites will be collectivized, especially small producers, at various levels in the UT, to foster technology penetration, improve rainfed area productivity, enable improved access to inputs and services and increase farmer incomes, thereby strengthening their sustainable agriculture based livelihoods.

The major components of the project thus would include- (a) Survey for identification of potential areas in subtropical, intermediate and temperate zones of Jammu and Kashmir (UT) (b) Capacity building and nurturing farmers' groups (c) Planning and implementation of technological interventions to improve crop production in rainfed areas, especially aimed at diversification and supply chain development, and (d) Formation and development of FPOs/Kisan Producer Company/Producer Association/Cooperative for market linkage and obtaining extension and knowledge services.

The project interventions will target 75000 (seventy five thousand only) farmers spread over 100 blocks of 20 districts of UT. There will be a total of 500 clusters of villages, each with 5 villages and 30 farmers. The village level unit comprises of basic producer groups (PG), each with about 5-10 farmers. This is a flexible format which will be adapted to local conditions to accommodate ground realities. However, project interventions will aim to mobilize at least 500 producers per district, as far as possible in dense clusters to facilitate large scale demonstration and achieve economies of scale. Once the PGs are stabilized they will be federated under a FPO/Farmers Producer Company or other institutional form depending on their preference, where the members of the PGs will become equity holders. About 10000 to 15000 farmers will be federated in each such institution. This body will eventually become the formalized local institution of farmers to address the issues of agribusiness and agriculture extension. A trained team of agribusiness professionals, recruited by the FPO, will help them to plan and implement their business plans.

Local Resource Persons (LRPs), men and women, will be groomed on institutional and technical aspects so that they can serve as service providers in the local area. Training, exposure and constant handholding to the FPOs and LRPs will be the key strategy of the project. The FPOs and LRPs are expected to be leading the project implementation, in consultation with the implementing agency, with facilitation support by the project staff.

Improved rainfed farming based production technology introduction and adoption will be the key to bring in positive change in production level of rainfed areas in the UT and the livelihood status of farmers /producers linked to the FPOs. The basic methodology followed in this regard will be the ATMA pattern of setting up "Farm Schools", which are participatory learning platforms of farmers with technical support by the project implementing agency. The aim is to embed technology upgrade mechanisms within the farming community through the FPOs on a sustainable basis.

Once the farmer organizations acquire scale and confidence (typically by the end of the second year) they will be assisted with services such as networking, DPR preparation etc. to enable them to seek Venture Capital Assistance (VCA) from Small Farmers' Agribusiness Consortium (SFAC, a Society promoted by Dept. of Agriculture, Govt. of India, can play a catalytic and nodal role in leveraging State Governments, civil society partners, financial institutions, resource persons and other stakeholders to promote FPOs) for investments in technology, infrastructure and value addition.

## Stakeholders in project & collaboration

### Identification of stakeholders and defining of role and responsibility

A multi-stakeholder structure will be established to ingrain trust, and to balance the interests of diverse groups of stakeholders and farming communities. Stakeholders' involvement can ensure that policy-making and implementation meet real needs in ways that make sense to the beneficiaries.

Structures	Departments	Functionaries	Tasks
Government agencies	Agriculture Department, Horticulture Department, Animal/Sheep Husbandry Department, Rural Development Department SAUs KVKs ATMA	Chief Agriculture Officer Chief Horticulture Officer Chief Animal Husbandry officer Chief Sheep Husbandry officer Block Development Officer In charge KVKs	<ul style="list-style-type: none"> <li>• To act as a bridge between different stakeholders and beneficiaries with for the smooth implementation of the project activities.</li> <li>• They can support coordination, communication and capacity building among the chain involved in the implementation of development programmes.</li> <li>• To extend their support and to facilitate in the development of value chain and rope the farmers into FPOs and other institutional arrangements.</li> </ul>
Village level workers & Committees		PRIs, Farmers Clubs, Farm Support Centres and SHGs etc.	Village level committees can help reach out to a broader concerned audience, both within departments and the general public.
NGOs	NGOs	Any relevant NGOs working in the domain.	Provide linkage between field functionaries and farmers.

### Project Management Team

Chairman: Dr. Zahoor A. Dar  
ADR-DARS Rangreth, SKUAST Kashmir

Member Secretary: Dr. A. P. Singh  
Chief Scientist (Agronomy), ACRA, SKUAST Jammu, Rakh Dhiansar

Members:

- Dr. Bhupinder Kumar (IIMR, Ludhiana)
- Dr. Vikas Sharma, RARS-Rajouri (SKUAST J)
- Dr. Vikas Abrol (SKUAST J)
- Dr. R.K. Srivastava (SKUAST J)
- Dr. Neelesh Sharma (SKUAST J)
- Dr. Parvaiz Sofi (SKUAST K)
- Dr. Jagmaohan Singh (SKUAST J)
- Dr. Ajaz A. Lone (SKUAST K)
- Dr. Meenakshi Gupta (SKUAST J)
- Dr. Shabir A Bangroo (SKUAST K)
- Dr. Rakesh Kumar (SKUAST J)
- Dr. Latief Ahmad (SKUAST K)



Dr. Arti Sharma (SKUAST J)  
Dr. Faisal ur Rasool (SKUAST K)  
Dr. Sameera Qayoom (SKUAST K)

## OPERATIONAL GUIDELINES

The support in terms of incentives/subsidy will be available for the following:

- a. Production of quality seed & quality planting material.
- b. Technological demonstrations/interventions w.r.t. agriculture, horticulture, livestock using critical inputs based on production constraints at each pilot project site.
- c. Promotion of Integrated Farming System (IFS)/Integrated Livelihood Systems (ILSs).
- d. Strengthening of crop diversification through inclusion of pulses and oilseeds.
- e. Promotion of in-situ water conservation using mulches and potential agronomic practices (location specific).
- f. Promotion of organic farming practices with a focus on value addition/recycling of farm wastes into enriched compost/manures.
- g. Popularization of IPM & INM modules.
- h. Promotion of Micro-irrigation.
- i. Creation of irrigation sources (Bore Wells), Water Storage Structures- Storage Tanks, Portable Geo Tanks, Roof-top Rain Water Harvesting Structures, Poly Tanks/flexi water tanks, Gravity feed drip irrigation systems.
- j. Promotion of mechanization through establishment of Custom Hiring Centers.
- k. Creation of storage infrastructure in rural areas.
- l. Creation of Compost/Vermi-compost units.
- m. Establishment of Village Seed Banks.
- n. Creation of Goat, Sheep, & Backyard poultry units.
- o. Maximizing AI coverage through high yielding germplasm.
- p. Prevention and control of major economically important diseases.
- q. Formation and development of FPOs/FPCs, Market linkages/value chain development.
- r. Creation of Post Harvest Handling Facilities.
- s. Agro-Processing/ Value Addition.
- t. Creation of small processing unit (need based at selected sites).
- u. Promotion of value added milk and meat products and cold storage facilities.
- v. Promotion of Composite feed blocks/ Nutrient blocks.
- w. Generation of quality planting material, standardization of protocols for post harvest management of fruits.

Capacity building of the targeted groups of the farmers will be done by the concerned development departments for effective implementation of the project components/activities as envisaged in the project. Apart from this, Broad basing Agricultural Extension and Empowerment of Grass root Level Organizations (FPOs/PRI/NGOs/SHGs/PGs etc.) shall be done by the concerned development departments. Efforts shall also be made by the concerned development departments to Encourage Public-Private Partnership (PPP) and Bringing in Marketing Reforms.

The scheme shall be implemented through Agriculture Department Jammu/Kashmir, Horticulture Department Jammu/Kashmir, Animal/Sheep Husbandry Department Jammu/Kashmir and technically supported by SKUAST-Jammu, SKUAST-Kashmir and their respective KVKs and monitored by committee constituted by the Administrative Department for the purpose.

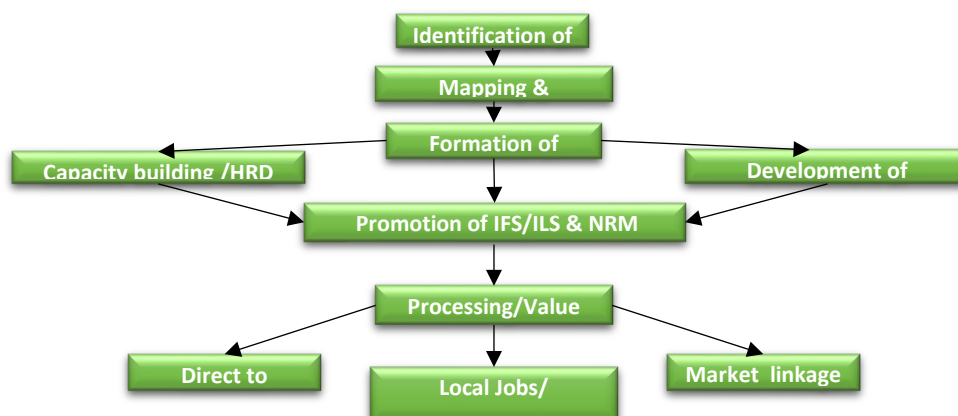
1. Any individual/group of individuals/Farmers federated through Farmers Producer Organization (FPOs)/SHGs/ Cooperatives/ can avail the benefits.
2. Farmers availing the benefits shall be registered with the concerned Development Departments as per the provisions in vogue.
3. Efforts will be made to cover 20% SC/ST and 10% women beneficiaries.

4. The component wise details of benefits available are provided in the DPR.
5. The beneficiary should avail insurance facility from any insurance company registered with Insurance Regulatory and Development Authority of India, however, respective Development Departments shall bear no responsibility for settlement of claims or any dispute with insurance company in question.
6. Interested beneficiaries will submit their application through respective District Heads of the concerned Development Departments. The CAO/CHO/CAHO etc., as the case may be, after due scrutiny shall submit the case of eligible beneficiaries to the respective Directorate (s) of concerned Development Departments.
7. All the required documents and a brief viable business plan, indicating the site of installation/purpose/supply chain, if any/shall be enclosed with application.
8. Subsidy/Incentives shall be extended on first come first serve basis, preferably to the Farmers federated through Farmers Producer Organization (FPOs)/SHGs/ Cooperatives, subject to the availability of funds.
9. For establishing the different Units, as proposed in the DPR of the project, beneficiary shall own the required land on which the Unit(s) has to be established.
10. Release of incentive/subsidy will be only through DBT mode.
11. In case beneficiary avails bank loan for establishing a Unit, District Heads of the concerned Development Departments shall forward the approved estimates along with copy of application to the Bank. The bank shall follow all RBI guidelines for sanctioning of such loan(s). After receipt of NOC from Bank, District Head(s) of the concerned Development Department(s) shall submit the case to respective Directorate for approval.
12. The Administrative Department will constitute a committee for periodic monitoring w.r.t. the implementation and impact assessment of the project/scheme.
13. The Director(s) of concerned Development Department(s) shall draft a uniform SOPs for beneficiaries which shall include checklist, all procedures and other codal formalities involved for applying under different components of scheme. They shall also submit list of beneficiaries of the newly established units along with beneficiary and month-wise physical/financial achievements of the scheme to the Administrative Department. The same details shall be uploaded and updated on official website of the concerned Development Department(s) of Jammu/Kashmir on regular basis.

**Research and Development:**

After notification of the scheme Concerned Departments in SKUAST-J and SKUAST-K shall be provided the required funds and support to undertake the research and development components as proposed in the DPR. The support shall be available to conduct Research on Generation of quality planting material, standardization of protocols for post harvest management of fruits, Seed production /quality planting material, Resource Mapping, Characterization & Prioritization, Maximizing AI coverage through high yielding germplasm, Prevention and control of major economically important diseases, Composite feed blocks development/ Nutrient blocks development.

**PROCESS FLOWCHART**



## 16. ALTERNATE AGRICULTURE SYSTEM FOR SUSTAINABILITY:

### Selection of Area:

The areas where usage of chemicals/fertilizers is minimal and require little intervention will be identified by joint survey by Department of Department of Agriculture and SKUAST K & J. 100 Clusters from these areas will be identified. Further 5 cluster in each district will identified for organic cultivation. 1 Cluster : 20 ha. Total project will be carried for 4000 ha area on pilot basis.

### Technology Demonstrations:

On farm demonstration of technologies in every district by laying 20 OFTs/ district. Each demonstration is of 5 kanals. The expenditure on account of demonstration will be on critical inputs like Vermicompost, biofertilizers, microbial consortiums, trichoderma, pheromones and other technologies recommended by scientific institutions. The High value crops/ Niche Crops shall be preferred for demonstrations. These demonstrations shall be carried out by SKUAST J & K in participatory mode.

### Incubation Cum Startup Grant:

Incubation will be carried at incubation Centre of two respective farm universities. Duration of incubation will be 12 months. 20 innovative ideas pertaining to organic agriculture will be selected on competitive pitching (10 each in Jammu and Kashmir). The selected incubate will be given startup grant which will commensurate to novelty of the project.

### Incentivization of Beneficiaries

This activity will be carried in established clusters by department of agriculture

- 5 commercial Vermicompositing units/ district will be established. Commercial Vermicomposit Unit is made of 20 Pits with dimensions (10 Feet Length, 3 Feet Width, 2.5 Feet Depth) Covered with Galvanized Tin, Shed erected on Angular Iron) with vermiculture, Canvas sheet, Silpaulin polythene. Preference will be given to beneficiary having 10 or more cattles. **The expenditure on account of this shall be met from centrally sponsored schemes**
- 50 low cost Vermicomposit units @ 0.50 lakh/unit will be established in selected clusters. Low Cost Vermicomposit Unit Comprised 3 Pits with dimensions (10 Feet Length, 3 Feet Width, 2.5 Feet Depth) with vermiculture, Canvas sheet, Silpaulin polythene.

### Capacity Building/ Hiring of Knowledge partners:

It will be carried out of by SKUAST J and K. Renowned scientists/ practitioners in organic farming (Both National and International) will be invited to seek their expertize. Nodal Officers of SKUAST-K , Agriculture Department and concerned scientists will visit to Institutes (national and International) for exposure visits. Further capacity building of department officials/ officers and KVK Scientists will be an ongoing process.

**Any other expenditure beyond the guidelines will be carried out after seeking proper approval from competent authority**

**17. SENSOR BASED SMART AGRICULTURE:**

**This is a pilot project and shall be implemented by SKUAST-Jammu/ Kashmir. The modalities of project shall be devised by both the Universities and they shall also work out a suitable PPP model by inviting EoI's for field level implementation. The model farms thus devised shall be kept open for public demonstrations and 3<sup>rd</sup> party assessment with quarterly progress submission to Agriculture Production Department.**

## **18. MINIMIZING PESTICIDE USE IN AGRICULTURE:**

### **Cluster orchard development:**

- Director Research, SKUAST-K shall invite EoI from growers (with neighbouring orchards) from each apple growing districts of Kashmir valley for developing cluster orchards at landscape level.
- Ten apple cluster orchards of five Hectare each at landscape level shall be developed in ten districts of Kashmir valley with proper geometry for automation & optimisation of operations.
- Preference shall be given to the growers with flat land that is more suitable for the use of tractor drawn spraying machines. There should be least investments required for levelling and development of land for cluster orchard development. If growers from different areas from same district shall apply to develop cluster orchards with similar land topography, then land of those who will apply first shall be selected for orchard development.
- The cluster orchards shall be managed by the project team for five years with yearly input charges on account of pesticides shall be borne by the growers.
- The growers must furnish an affidavit to the effect that they shall cooperate with all the conditions/guidelines as may be prescribed by the project team.

### **Development of Agri-entrepreneurs in Bio-control agents:**

- Director Research, SKUAST K & J shall invite EoI from anyone (Jammu/Kashmir regions) interested in entrepreneurship in Bio-control agents.
- Maximum of five candidates from each district of Jammu and Kashmir shall be selected for entrepreneurship development in Bio-control agents.
- The candidates shall be selected on first come first basis. Preference shall be given to graduates in Agriculture and allied sectors.
- The prospective entrepreneurs shall be given two month trainings in SKUAST-K/J labs. The expenses on account of boarding and lodging of selected candidates during the 2 months training shall be borne out of the project budget.
- The candidates shall be given technical guidance necessary for establishing the Bio-control production units.

## 19. J&K SOIL AND LAND RESOURCE INFORMATION SYSTEM:

### 1. Objectives:

- a. Employment generation for rural youth.
- b. To improve timeliness in analysis of soil samples.
- c. Introduction of the Single Window approach from collection to issue of SHC so as to minimize delays and maximize convenience to farmers
- d. Online delivery of soil health cards to the farmers using Soil Health Card Portal.
- e. Provide soil testing facilities to farmers at their door step.

### 2. Scheme Structure

District Level Executive Committee (DLEC) will be responsible for carrying forward the objectives of the scheme for project evaluation, implementation and monitoring.

The District Level Executive Committee (DLEC) will comprise of the following: Collector/Deputy Commissioner	Chairman
Deputy Director / District Agriculture Officer	Member Secretary
District Horticulture Officer	Member
Soil Testing Officer	Member
Representative from KVKs/ SAUs	Member

### 3. Beneficiary:

- (i) The beneficiary / village level entrepreneur should be a youth in 18-27 years age group especially from Saansad Adarsh Gram Yojana (SAGY) villages.
- (ii) The beneficiary must be qualified at least 2nd division matric with science with knowledge of computer.
- (iii) The applicant shall submit the application along with requisite qualification certificate, PAN Card and Aadhar Card to the office of Deputy Director / District Agriculture Officer.
- (iv) Apart from collection, testing of sample, printing & distribution of cards to farmers, the selected beneficiary shall provide results of soil samples tested along with samples / farmers in excel sheet to the concerned soil testing officer of the area.
- (v) The applicant / beneficiary should have his / her own building for setting up village level soil testing lab or rental building with lease agreement for at least four years.
- (vi) The beneficiary has to submit a bond for running the labs for at least 2 cycles i.e. at least 4 years.

### 4. Financial Assistance:

To establish a Village Level Soil Testing Project (VLSTP) the maximum project cost is Rs. 5 lakhs. The financial assistance @ 75% of the total cost of project shall be admissible as one time subsidy that will be shared between GOI and State Government on 60:40 basis (90:10 for NE and Hilly States). The remaining 25% cost of the project shall be invested by the entrepreneur at his/her own level.

## **B. GUIDELINES FOR ESTABLISHMENT OF NEW STATIC SOIL TESTING LABORATORIES (SSTL) AT DISTRICT LEVEL BY INDIVIDUAL/ AGRIPREUNER/PRIVATE SECTOR UNDER NATIONAL MISSION ON SUSTAINABLE AGRICULTURE**

### **1. Setting up new Soil Testing Laboratories (Static):**

In order to promote soil test base balanced and judicious use of chemical fertilizers, assistance will be provided to set up new static.

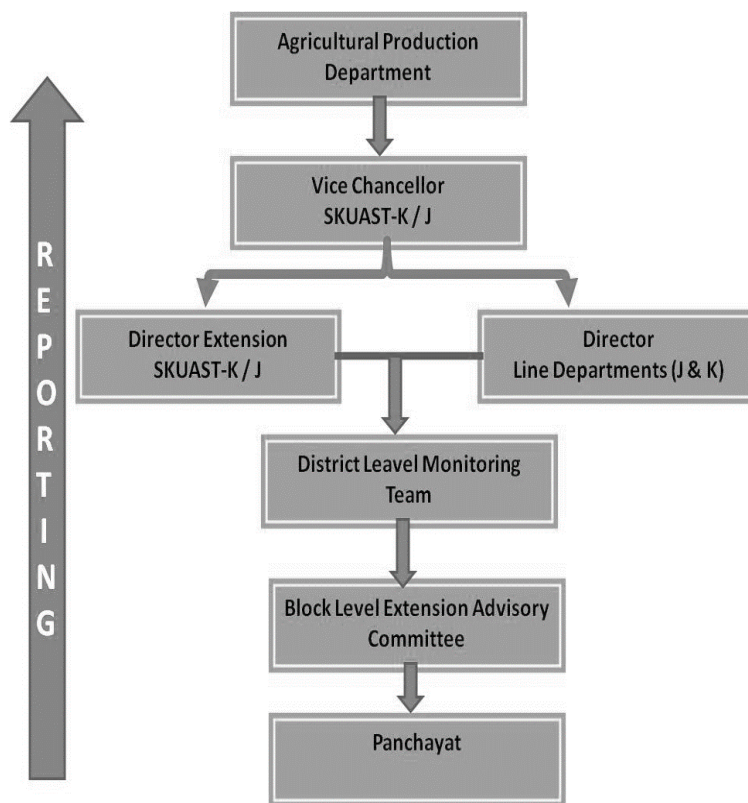
### **2. Norms:**

In case of static SSTLs 60% of the project cost, subject to a limit of Rs.45 lakh, will be provided as subsidy for purchase of machinery & equipment, chemicals & glass wares, miscellaneous laboratory articles and contingencies.

## 20. INNOVATIVE APPROACHES IN AGRICULTURE EXTENSION:

### Monitoring and Evaluation

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### Operational Guidelines:

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- The scheme shall be implemented through Agricultural Production Department, Govt. of J&K
- The Kissan Khidmat Ghar shall be created at panchayat.
- Efforts shall be made to give due cover to ST/SC and women beneficiaries as facilitators at KKGs as per UT norms.
- Facilitators shall charge nominal service charges and shall have to follow all requisite norms for extending services with weekly reporting to Panchayat, BLEAC and Line departments
- The application for Facilitators shall have to be endorsed by local Panchayat to APD for their enlisting.
- The district/ block level administration of line departments shall depute technical staff for providing services at KKG
- District administration shall notify constitution of BLEAC and district level committees with senior most officer from line departments as Chairman
- APD shall facilitate cyber space for launching cyber extension portals
- Cyber cells shall abide by IT policy for launching cyber portals



- Universities shall follow procedures as per university statutes for institution of students rural exploration, capacity building and skill development programmes.
- In case of activities under sponsored programmes, the guideline of the sponsoring institution shall be a binding
- For research in extension, two universities shall submit DPR which shall be evaluated by joint Committees constituted by Vice Chancellors of two Universities (SKUAST-K & J).

## 21. PRODUCTION OF DESIGNER PLANTS FOR PRODUCTION OF HD PLANTS AND REJUVENATION OF ORCHARDS:

### The following shall be the operational guidelines for implementation of the Project:-

- The Director Horticulture, Jammu/Kashmir 'Chairman Divisional Level Purchase Committee (DLPC)' shall invite EoI from individuals/Self Help Groups/Agri-Entrepreneur(s)/FPO's interested in establishing fruit plant nurseries/Rootstock banks/Mother Orchards/Protected Cultivations. The applications received shall be scrutinized by a Technical Committee having members from the Department of Horticulture, Jammu/Kashmir, SKUAST, Jammu/Kashmir and CITH, Kashmir (for Kashmir Division) with reference to the following criteria:

#### I. Criteria for rootstock bank and nursery development:

S.N.	Particulars	Points	Remarks
1.	Land Area	20	5 points for each hectare.
2.	Availability of irrigation infrastructure	20	-
3.	Accessibility	10	-
4.	Fencing	10	-
5.	Location/Topography	10	-
6.	Soil Status	05	Based on soil analysis report.
7.	Availability of Farm Machinery	05	
8.	Experience	20	Experience in fruit plant nursery production having registration with NRO/NHB. Two (2) points for every year of experience.
	<b>Total</b>	<b>100</b>	

The applicant shall furnish a DPR, essentially covering all the above details as per the above criteria alongwith all necessary documents in support and timeline for implementation of the project:-

- The entrepreneur(s) shall be shortlisted on the basis of the points obtained as per the notified criteria. They shall be
- required to enter into an agreement with the Department for production/multiplication of Quality Stock, as per the advice of the Technical Committee.
- The minimum area available with the prospective entrepreneur(s) should be one acre. In case of individuals, the said area of one acre can be at one place or a maximum of two places. The technical Committee shall take a final call vis-a-vis locations at two placed keeping in view the feasibility. The land should be in the name of prospective entrepreneur(s) or the entrepreneur must possess valid lease hold rights of the land for a period not less than 10 years.
- The entrepreneur(s) must furnish an affidavit to the effect that he/she/they shall establish the Nursery and shall grow the varieties/cultivars specified by the Technical Committee.

- The production of the planting material/multiplication of rootstock shall strictly be undertaken by the entrepreneur(s) under the close supervision of Technical Committee and Nursery Registration Officer, Department of Horticulture. The entrepreneur(s) shall have to label the plants produced, after framing the availability statements for each nursery under the supervision of Nursery Registration Officer, Department of Horticulture.
- The prospective entrepreneur(s) can obtain the identified rootstock in two ways:
  - a) From Department of Horticulture/SKUAST-JK/CITH-K.
  - b) Import from outside the country.

**a) In case rootstock procured from Department of Horticulture/ SKUAST/ CITH:-**

- i. The rootstock produced at Government/Departmental nurseries/farms, will be supplied to the prospective entrepreneur(s) on subsidized rates as prescribed in the Scheme for development of High Density Fruit Plantation Nurseries notified vide Government Order No. 201-JK(APD) of 2022 dated 09.09.2022.

**b) In case of import from outside the country:**

- i. In case the entrepreneur(s) import the rootstock, the assistance shall only be released after the entrepreneur(s) furnish the PEQ release certificate issued by the Competent Authority and shall comply to the following conditions:-
  - The entrepreneur(s) shall import the identified rootstock from reputed nurseries.
  - Rootstock must carry necessary Virus Free, Phytosanitary and true to type certificates, release order from Customs Department and Directorate of Plant Protection and Quarantine Authorities.
  - The entrepreneur(s) shall provide the copies of Post Entry Quarantine Certificates (PEQ-18 & 19) to NRO along with copies of import permit.
  - To adhere with IPRS norms, the material shall essentially carry permission to grow, multiply and sell, as most of the varieties are patented.
  - The entrepreneur(s) shall observe all the Post Entry Quarantine measures and shall grow the plant material under the guidance of Nursery Registration Officer, Department of Horticulture and Directorate of Plant Protection and Quarantine Authorities.
  - The plant material shall be under observation for PEQ measures under the Designated Inspection Authority (DIA) and once the material is released by the Competent Authority, the required certificate shall be provided to the Nursery Registration Officer, Department of Horticulture.

**❖ Root Stock specifications:**

- **The stock must be of minimum 8 mm diameter above crown level.**
- **The stock must possess entire root system.**
- **The stock must be free from diseases and pests.**

**Plantation Spacing:-**

S.No.	Description	Spacing (R x R and P x P)
1.	Rootstock Bank (Clonal multiplication of rootstock)	1.25 mt X 0.25 mt
2.	Nursery Development (Production of plant material)	0.75 mt x 0.25 mt

Note: Rate per rootstock -as per Departmental norms (Rs. 70 per Rootstock).

❖ **Source of scion wood: -**

- a) Department of Horticulture, J&K.
- b) CITH/SKUAST.
- c) Import from genuine source.
- d) Mother block Developed by the entrepreneur(s).
- e) Selection of the mother plant must be made with greatest care, since the performance of the progeny depends entirely upon the characteristics of the mother plant. While selecting mother plants following basic characteristics must be considered:
  - (i) Consistently high performance and yield over several years.
  - (ii) Healthy and free from diseases, insect pests and viruses.
  - (iii) Plants with appropriate quality parameters.
  - (iv) The maintenance of these blocks will be done regularly, so that they remain healthy and free from diseases and insect pests.
  - (v) The varieties already recommended by SKUAST-J/K for plantation under High Density Plantation Programme.
  - (vi) Variety wise labelling of mother plants.

❖ **Standards for production of quality plants:**

The criteria/standards for quality fruit plants to be considered for assistance under the Scheme shall be as follows:-

- The plants with 4 feathers and above (15 to 20 cm in length)
- Height of the plant should not be less than 120 cm above graft union.
- The plant should essentially possess entire root system, free from disease/pest contamination.

❖ **Mode of assistance.**

Assistance shall be provided to the selected entrepreneur(s) on Development of Nursery and Rootstock Bank in the following manner:-

- Assistance on rootstock bank for clonal propagation shall be provided @80% of the cost of rootstock limited to a maximum of Rs. 56.00.
- Assistance @50% shall be provided on production/maintenance cost of saleable plants limited to Rs. 65.00 per plant, after Nursery comes in production phase.
- The release of subsidy shall be subject to following terms:-
  - i. The Entrepreneur(s) shall have to develop the Nursery and Rootstock bank under the guidance/supervision of Department of Horticulture/Technical Committee.
  - ii. The Entrepreneur(s) shall not undertake any varietal modifications/replacement of plant material/Rootstock without the consent of Technical Committee for a period of ten years.

**A. Typical Estimates for production/maintenance of fruit plants per hectare.**

S.no.	Particulars	Rate (in Rs)	Estimated amount (in Rs.)
1.	Land Development	40,000/ha	40,000.00
2.	Manuring @ 2 cft/m <sup>2</sup> (20,000 cft/ha/annum)	20/cft	800,000.00 (for 2 years)
3.	Weeding/Hoeing 06 times a season @ Rs2000/ha/weeding	12,000/ha	24,000.00 (for 2 years)
4.	Running irrigation system 12 times in a season @Rs.3000/ha	3,000/ha	72,000.00 (for 2 years)
5.	Nutrient application/foliar spray @ Rs 6,000/ha	6000/ha	12,000/ha (for 2 years)
6.	Plant protection measures @ Rs. 6000/ha	6000/ha	12,000/ha (for 2 years)
7.	Bamboo stacks 50000/ha	8/stack	400,000.00
8.	Labour component (skilled/semi-skilled) for maintenance @ 08 labour/day/ha for seven months i.e. 1600 man days per year.	500/labour	16,00,000.00 (for 2 years)
9.	Miscellaneous /Contingency/unseen expenditure	32,000/ha	64,000.00
Total			30,24,000.00*

\*Rs. 30,24,000.00 for 50,000 plants i.e., Rs. 60/plant.

### B. Tentative cost of production per plant

S.No.	Particulars	Estimate cost per plant
1.	Cost of Rootstock	Rs. 70.0
2.	Plant production and maintenance cost for a period of two years	Rs. 60.0
<b>Total</b>		<b>Rs. 130.0</b>

## II. Criteria for Establishment of Mother Orchard:-

- The Entrepreneur(s) shall prepare the DPR depicting all details like crop/varieties, trellis, micro-irrigation, anti-hail net, specifications of all the components, farmers share, loan amount and subsidy besides, timeline for completion, in accordance with the laid down norms and shall be shortlisted as per the following criteria, the entrepreneur shall be selected as per the merit points within the available targets:-

### Criteria for short listing

S.N.	Particulars	Points	Remarks
1.	Land Area	20	1 point for each kanal.
2.	Availability of irrigation infrastructure	20	-
3.	Accessibility	15	-
4.	Fencing	20	-
5.	Location/Topography	10	-
6.	Soil Status	10	Based on soil analysis report.
7.	Availability of Farm Machinery	05	
	<b>Total</b>	<b>100</b>	

- All the Stakeholders shall be bound to abide by their responsibilities as envisaged in the DPR/Work Order.
- The selected entrepreneur shall have to enter into an agreement with the Government that he shall provide bud/graft wood to the selected nursery entrepreneur under the scheme as per specified requirements.

#### ❖ Mode of Assistance.

- Assistance shall be provided to the selected entrepreneur(s) @80% of the per hac cost under CAPEX as indicated herewith in Annexure 'A' herewith.
- The release of subsidy shall be subject to following terms and conditions & shall furnish an undertaking to the effect that:--
  - i. The entrepreneur(s) shall have to develop the mother Orchard under the technical guidance of Department of Horticulture/Technical Committee.
  - ii. The Entrepreneur(s) shall not undertake any varietal modifications/replacement of plant material without the consent of Technical Committee for a period of ten years.
  - iii. The Entrepreneur(s) shall have to provide bud/graftwood on reasonable rates as fixed by the Department/Technical Committee, from time to time.

#### III. Criteria for Protected Cultivation:-

- i. The Entrepreneur(s) shall submit the DPR depicting type of facility to be created and specify the crop to be cultivated and timeline of the project completion.
- ii. The Entrepreneur(s) shall be bound to abide by their responsibilities as envisaged in the DPR/Work Order.

#### Mode of Assistance.

- Assistance shall be provided to the selected entrepreneur(s) @80% of the unit cost of Rs. 7000/Sq.mt. or the actual cost/Sq.mt. whichever is lesser.
- The release of subsidy shall be subject to following terms and conditions & shall furnish an undertaking to the effect that:--
  - i. The unit shall be functional and utilized for the purpose it has been sanctioned for.
  - ii. The Entrepreneur(s) shall not undertake any modification upto 10 years without the consent of Department/Technical Committee.

- iii. The Entrepreneur(s) shall have to bear the periodic maintenance and running costs, in order to make optimal use of the unit under the supervision of Department/Technical Committee.

#### Annexure A

S.N.	Fruit Crop	Total(Rs in lacs)
1.	Apple	44.30
2.	Pear	32.34
3.	Cherry	36.79
4.	Olive	9.24
5.	Kiwi	24.54
6.	Mango	4.16
7.	Litchi	4.08
8.	Citrus	4.16
9.	Guava	5.01
10.	Dragon fruit	21.68
11.	Almond	8.34
12.	Walnut	5.41

#### **Rejuvenation of orchards for quality production and enhanced productivity**

- a. The Entrepreneur(s) shall prepare the DPR depicting all details like crop/varieties, and other activities to be carried out for rejuvenation along with estimated cost.
- b. The authorized entrepreneurs/ farmer shall raise bills against activities after completion of the work.
- c. The subsidy amount shall be released through DBT mode after successful receipt of report from field agency
- d. The orchard rejuvenation shall carried out on first cum serve basis with 50% assistance to the maximum of Rs. 6.0 Lakh per Ha as per below given estimates.

#### **Estimated cost for rejuvenation of 1 ha Apple orchard**

S.No	Operations /per kanal	Amount in rupees
1	Detopping of branch/ branches and cutting of old trees@ 2 labour 300 per day for one kanal	600
2	Skilled labour for grafting operation@2 labour days per day @ 500 per day/ kanal	1000
3	Grafting tapes and wax @ 1 labour per day per kanal	300
4	Wound dressing (Chaubatia Paste) @ 1 labour per day @ 300 per day	300
5	Pit digging for planting extra plants for gap filling between the existed plants@ Rs. 70/ for 20 pits	1400
06	New plants for gap filling @Rs. 500 per plant with 20 plants per kanal	10000
07	Graft wood/ scion wood @Rs. 20 per scion with 100 sticks per plant for 20 plants per kanal	40000
06	Input cost (fertilizers, pesticides etc.) for initial years	Rs. 7400
		60000/=
	<b>Total cost per ha (20 Kanals)</b>	<b>1200000/=</b>

**Public sector nurseries/ Rootstock banks/ mother orchards etc.**

These nurseries Shall be established by Department of horticulture J/K, SKUAST-J/K either at its own level as per the laid down norms or in PPP mode. The modalities for establishment of public sector nurseries in PPP mode shall be notified separately.



## 22. UT LEVEL FOOD PROCESSING PROGRAM FOR DEVELOPMENT OF CLUSTERS FOR SPECIFIC PRODUCTS OF J&K:

### 1. Introduction

Jammu & Kashmir has a strong position in food production globally and is the largest producer of agriculture and allied sector products.

However, the level of food processing across categories is low, especially in higher processing categories including secondary and above. To give an example, the level of primary processing in the fruit and vegetables category in Kashmir is a meager <1% as compared to India in general and other developed countries

Despite J&K's strong position in agri-production, the UT lags in the export of food products (including processed). India's share of agri-production in general is 9.5% globally while its share in the export of overall food products is only 2-3% -with share in export of processed food category even lower at 1-2%.

J&K is a growing economy. The agricultural produce, especially fruits, vegetables, dry fruits constitute larger share of the basket, have geographical identity as well as growing production. Apart from these the improving education level, standard of living as well as status of development and infrastructure assist in the growth of the sector.

The food processing sector of J&K can be a potential link both in terms of consumption as well as deployment of young resources. The industry can create market for its product at regional, national as well as at international level. The industry at present is surviving on the advantageous cues available, but for an accelerated growth there are some core developmental issues.

The food processing units require a robust support of infrastructure, quality raw material, transportation, storage, packaging material, electricity etc for the industrial development. In J&K, 30% of the total fruit produced gets wasted due to non-availability of packaging and processing facilities. Mismatch between production and post-harvest management. The post-harvest losses range from 15-20%. Post-harvest losses are mainly due to inadequate infrastructure, poor storage, transportation and electricity. Quality Management/testing/Accreditation is also most important attribute to processed foods and J&K doesn't have such facilities on sufficient basis.

There is no Marketing support at State or Central Level to the food processing sectors as also the lack of Technology awareness among the individuals/growers/entrepreneurs.

The above factors highlight that there is further need to enhance the adoption of global best-practices to improve productivity, to develop post-harvest and marketing infrastructure, to invest in food processing & value addition activities and to amplify the use of innovative technologies in order to increase the sector's domestic and global market share. The cluster development approach, based on the geographic specialisation of agriculture/horticulture products, can address the above concerns holistically and sustainably.

With a view to enhance global competitiveness of the specific products of J&K, the Agriculture Production Department, Govt. of Jammu & Kashmir, proposes to replicate the Cluster Development Programme of the Ministry of Agriculture and Farmers Welfare (MoA&FW), GoI, as "**UT Level Food Processing Programme for Development of Clusters for Specific products of J&K**" – a one stop solution that can provide food processing industry in J&K the necessary firepower to achieve its export potential.

A **Cluster (of specific product)** is defined as a regional/geographical concentration of targeted agriculture/horticulture or any other allied sector product, offering scope for specialisation in production, post-harvest management, marketing and exports. These clusters provide **growth and development opportunities to stakeholders**.

The Cluster based food processing approach will facilitate in realising suitable economies of scale in production and post-harvest activities and is required to help in better price realisation and empowerment of the farming community to enhance their income through building competitiveness across the entire value chain.

The Cluster Development approach is designed to leverage geographical specialisations of clusters of specific products and promote integrated and market led development of pre-production, production, post-harvest, logistics, branding and marketing activities.

GoJ&K based on the ODOP theme of Prime Minister's Formalization of Micro Food Enterprises (PM-FME) Scheme of Ministry of Food Processing Industries (MoFPI), GoI has identified 7 Clusters in 17 districts to accelerate their competitiveness in the pilot launch of the programme. The list of identified clusters is annexed as **Annexure-I**. Based on the learning, output and outcome of the pilot implementation, the programme will be scaled up in other potential clusters.

The approach of developing clusters of specific products in different agro-climatic zones of the UT would also help in dealing with various supply side issues like quality planting material, soil health management, adoption of Good Agricultural Practices and innovative technologies to promote market led production apart from addressing the gap in information sharing on Sanitary and Phytosanitary Measures (SPS) and Technical Barriers to Trade (TBT) issues for export markets.

The cluster-based approach is expected to address the concerns and common challenges of all the stakeholders in a **cluster**. While individuals and institutions within a cluster will compete, they are also expected to collaborate and complement each other to function as an optimally aggregated group, optimising resources and achieving the desired impact through focused interventions.

## 2. Objectives

The main objectives of the programme are to:-

- a) Address concerns of agriculture/horticulture/pisciculture/livestock agriculture/dairy value chain, from pre-production, production, post-harvest management & value addition to logistics, marketing & branding, in an integrated manner to accelerate competitiveness in the domestic and export markets
- b) Reduce and post-harvest losses by developing/expanding/upgrading infrastructure for post-harvest handling of produce, value addition and market linkages
- c) Facilitate the introduction of innovative technologies and practices to enhance the global competitiveness of focus cluster products
- d) Facilitate the dovetailing of resources, including the convergence of various government schemes, to entrench stakeholders in the global value chains
- e) Build stakeholder capacity and enhance farmers' income through cluster-specific interventions, including brand promotion.
- f) Set up processing units in Clusters or outside clusters for economic upliftment.

## 3. Salient Features

- a) The programme will focus on all stakeholders in the value chain including farmers/producers, traders, aggregators, agribusiness enterprises, logistic players, retailers, processors, exporters and other public and private service operators.
- b) The programme will support integrated interventions to enhance the competitiveness of targeted clusters. The interventions shall be implemented through specialised Implementing Agencies (IAs). To effectively leverage their specialisation, the interventions have been classified into the following three verticals :-

1. **Pre-production and production** :- Support capacity-building of farmers and farm proximate interventions covering crop lifecycle, including planting material, crop care

practices and farm mechanization until the harvest of the crop. One of the main roadblocks in the growth of food processing exports in J&K and in overall India is *cost competitiveness and quality of agri-produce*. This is largely influenced by farming in India (*J&K in particular*) being dominated by small holder farmers (SHFs) with limited knowledge about best-in-class farming practices. A potential way of solving this problem is by regulating the upstream value chain through setting up of robust crop specific PPP models involving support from government and leading private players to achieve success at scale.

- 2. Post-harvest management & value addition :-** Support interventions at the cluster level, ranging from post-harvest handling of the produce during transportation to storage, processing, value addition and packaging. A substantial loss (~ INR 1 Lakh Crore) is incurred annually along the post-harvest value chain – with lack of proper logistics and storage facility in India acting as significant contributor to the same. Therefore, it is critical that adequate infrastructure facilities are in place to avoid losses. There are challenges involved in developing and efficiently running the infrastructure facilities given the high setup and operational costs involved. The cold chain storage facilities which are critical for several food categories are a good example to highlight the existing challenges. The cold chain industry in India is fragmented and it will take substantial investment in building technology enabled cold storage facilities to cover the entire value chain from procurement to transportation in refrigerated trucks. The cost of operating a cold chain in India (~USD 9 per pallet per month) is almost 3 times the cost in the developed countries (~USD 3 per pallet per month). The electricity expenses alone contribute 25-30% of the total expenses in cold storage chain industry in India verses 10% in the developed countries. The fuel costs in India are significantly higher than in developed countries. To address these prevailing challenges, it is important to set up collaboration among private players for setting up infrastructure facilities like (*Quality testing labs, cold storages, processing units, Collection Centers, transportation and network etc.*) as well as pool their existing infrastructure capabilities to promote growth of overall ecosystem.
- 3. Logistics, Marketing and Branding :-** Support interventions to link cluster produce with consumption markets and seamless logistics for efficient evacuation; cluster branding and outreach in the domestic and export markets. Another roadblock in growth of exports for processed food products is weak perception of India brands overseas. Thus, it is imperative that efforts are made to strength branding in the overseas market. Establishing a strong brand can require significant investment and a lot of effort – which can be difficult for a player to undertake individually. Also having different brands for the same product category from India can be potentially confusing for the overseas consumers. Therefore, it is important that the relevant stakeholders within the product specific value chain – including food processors, exporters and the relevant government agency come together to establish a common brand. This way they can pool their limited funds and combine their efforts to promote and strengthen a common brand in the overseas markets. A consistent and harmonized branding strategy can be developed and anchored on promoting premium quality, freshness and superior taste of the product. This will not only help in improving the brand perception but also help achieve greater penetration in these markets. Another important aspect related to branding is that there is a need for more GI brands to be developed in the UT to protect products specific to a geographic location in J&K from falsely branded products in the market, and help them in charging a premium. The government can take a lead here in setting up a product specific common organization with relevant ecosystem players on board for setting up the GI brand.

c) The focus activities/interventions for each vertical will be as under:

### **Pre-production and Production in collaboration with the line departments**

- I. Leverage and/or promote the creation of Farmer Producer Organisations/Farmer Producer Companies (FPOs/FPCs) and build their capacities through training and awareness, as well as necessary credit linkages.
- II. Assist in the provision of disease-free quality planting material and address the related issues through the import of germ plasm and seed varieties, as well as through the establishment of tissue culture labs and Hi-tech nurseries.
- III. Assist in area expansion, introduction of new and improved varieties of high-value horticultural crops and promotion of high-density plantations.
- IV. Promote the adoption and dissemination of Good Agricultural Practices including Integrated Nutrient Management (INM), Integrated Pest Management (IPM) and Crop Care Practices, to improve global competitiveness.
- V. Assist in the adoption of new and advanced farm machinery and technologies, use of farm management software and related innovations, promote advanced digital solutions, such as geo-tagging, weather and disease forecast, by leveraging Internet of Things (IoT), Blockchain for traceability, Information Technology (IT) and Remote Sensing
- VI. Assist in the development of production-related infrastructure for protected cultivation, micro-irrigation, precision farming, etc.
- VII. Facilitate the establishment of labs for soil testing, plant nutrient testing, Maximum Residue Levels (MRL), etc., by dovetailing of relevant schemes.
- VIII. Collate and disseminate real-time market intelligence to support farmers/FPOs with inputs on market-driven production.
- IX. Facilitate compliance to sustainability and ethical requirements in identified clusters vis-a-vis importing markets. These include Sanitary and Phytosanitary Measures (SPS), MRL, Technical Barriers to Trade (TBTs) and standardised protocols and regulatory requirements.
- X. Develop Information, Education and Communication (IEC) material for knowledge dissemination to promote diversification of agriculture/horticulture/aquaculture/livestock/dairy production through technology and knowledge transfer by way of awareness campaigns, workshops and exposure visits.
- XI. Any other activity/intervention required within the vertical that will enhance the holistic development of the cluster.

### **Post-Harvest Management and Value Addition**

- I. Facilitate farmers/FPOs in creation of decentralised infrastructure at the farm gate for post-harvest handling of produce, including collection centres at primary processing by establishing the necessary credit linkages especially through Agri Infra Fund.
- II. Establishment, expansion and modernisation of cluster-level infrastructure for post-harvest management of products including collection centres, primary processing units, reefer vans, integrated pack-houses, ripening chambers, pre-cooling units, cold rooms, Processing and Value addition Units.
- III. Establishment, expansion and modernisation of cluster-level cold storage infrastructure including multi-temperature and controlled atmosphere cold storages.
- IV. Facilitate the development of packaging standards and other ancillary facilities including packaging required for post-harvest handling of produce.
- V. Any other activity/intervention required within the vertical that will enhance the holistic development of the cluster.

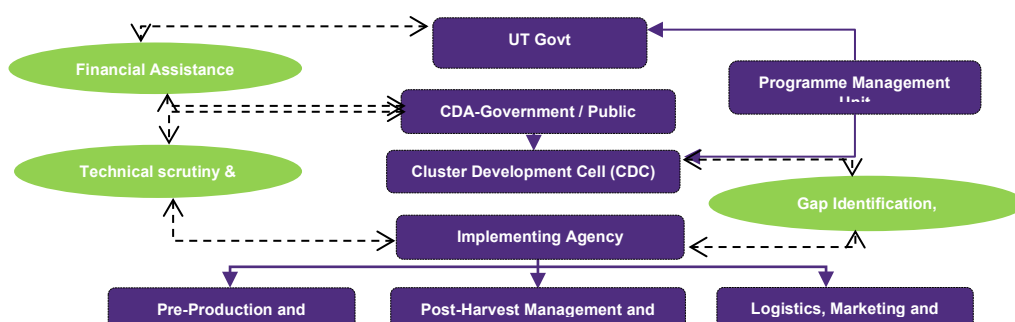
## Logistics, Marketing and Branding

- VI. Assist in the development of transport, cold chain and other logistics infrastructure from farm gate to the domestic market and up to the exit point for export markets.
- VII. Promote the use of alternative multi-modal means for seamless transport leveraging - Krishi Udan, KisanRail, Inland Waterways, Dedicated Freight Corridors, etc., by the creation of appropriate infrastructure, wherever required.
- VIII. Facilitate the development of sea protocols for long distance transportation.
- IX. Establish market linkages in identified domestic and export markets including use of e-commerce platforms and digital marketing.
- X. Develop and promote distinct 'Cluster Brands' for identified clusters on common agreed values, such as nutritional and nutraceutical values of variety, Good Agricultural Practices (GAP), Good Manufacturing Practices (GMP), HACCP (Hazard Analysis Critical Control Points), food safety and environmental sustainability, among others.
- XI. Assist in the promotion of cluster produce through GI tagging, marketing campaigns (print/electronic), road shows/buyer-seller meets, product sampling in target markets.
- XII. Collate and disseminate market intelligence with inputs on real-time market needs including export protocols.
- XIII. Any other activity/intervention required within the vertical that will enhance the holistic development of the cluster.

## 4. Implementation Framework

The implementation structure of the programme is detailed as under:

- a) Govt. of J&K shall provide financial assistance and supervise the overall implementation of the programme.
- b) JKHPMC as recommended by the UT Govt. proposes to act as Cluster Development Agency (CDA) for each identified cluster for the implementation of the Programme.
- c) JKHPMC as CDA will establish a Cluster Development Cell (CDC) in collaboration with SKUAST-K/J and connected stakeholders with a dedicated team of officers within the CDA for smooth implementation of the programme.
- d) JKHPMC proposes to select Implementing Agency/Agencies (IAs) through Call for Proposals in an open and transparent manner for the different verticals of the Cluster, namely:-
  - Pre-production and Production
  - Post-Harvest Management & Value Addition
  - Logistics, Marketing & Branding
- e) The Programme Management Unit (PMU) of UT Govt (*Consultants*) shall provide technical assistance to UT Govt. and JKHPMC (CDA) for the effective implementation of the Cluster Development Progra



## **5. Cluster Development Agency (CDA)**

The Cluster Development Agency will be a Government/Public Sector Entity appointed by UT Govt. for the UT Level Food Processing Programme for the Development of Clusters for Specific products of J&K subject to the fulfilment of the eligibility criteria.

### **5.1 Eligibility Criteria for CDA**

**The eligibility criteria for CDAs will be as under:**

#### **5.1.1 Relevant experience in agriculture/horticulture and value chain development**

The area of experience may include supply/production of planting material, orchard management practices, post-harvest management, value addition, facilitation of market linkages, trade promotion etc.

#### **5.1.2 Availability of relevant manpower and resources**

The entity should have a team of officers/professionals in the field of agriculture/horticulture promotion, value chain, post-harvest management and marketing with a reasonable strength of manpower.

#### **5.1.3 Net-worth of the recommended entity must be positive**

Net-worth will be ascertained for the last three consecutive financial years from the audited balance sheet of the Agency as per the norms of the Institute of Chartered Accountants of India (ICAI) which computes net-worth of a public enterprise as paid-up share capital and reserves created out of profits.

#### **5.1.4 Ongoing interventions within the cluster**

Preference shall be given to the entity having their presence/outreach in the cluster and having implemented/ongoing interventions across the value chain in one or more of the verticals of the cluster applied for.

**5.2** Public sector entities that can be considered for the role of CDA include State Agriculture Marketing Boards, Horticulture Development Agencies, Marketing and Processing Corporations, Export Promotion Agencies and other Public Sector Undertakings of Central/State Governments. The order of priority for selection of a CDA is as follows:

5.2.1 Any government/public sector entity recommended by the UT Government fulfilling all the eligibility criteria will be preferred as CDA.

5.2.2 The UT Government may also recommend entity (ies) established under Public Private Partnership/Joint Venture arrangement (as per GOI definition) between Central/State Government and Private Sector as CDA, subject to meeting all the eligibility criteria.

5.2.3 In the eventuality of a UT Government recommended entity (ies) not meeting the eligibility criteria for the CDA of a cluster, UT Govt may appoint a similar State Government entity or UT Govt may itself play the role of CDA.

**5.3** Upon selection of the CDA, an Agreement/MoU will be executed between Agriculture Production Department, Govt of J&K and the CDA for mutual cooperation and facilitation in programme implementation.

*\*JKHPMC as recommended by UT Govt. proposes to act as CDA in UT LEVEL Food Processing Programme for Development of Clusters of Specific products of J&K.*

### **5.4 Role of JKHPMC as CDA**

5.4.1. JKHPMC will establish a Cluster Development Cell (CDC) in collaboration with Research

Institutes (SKUAST-K/J) and connected stakeholders with a dedicated team of officers with the requisite background and experience within CDA for the following activities:

- a) Participatory Gap Assessment and preparation of Cluster Gap Assessment Report covering all verticals of the cluster
  - b) Floating of a composite Call for Proposals based on the Cluster Gap Assessment Report for selection of Implementing Agencies
  - c) Technical Evaluation of proposals received from the applicant agencies for different verticals as per the laid down eligibility and scoring criteria
  - d) Submit the recommendation of Evaluation Committee to the UT Level Approval Committee for final selection of Im
  - e) Release of financial assistance to IAs based on progress of the implementation and monitoring of milestones as defined in the programme guidelines
  - f) Dovetailing of resources from other relevant schemes and initiatives of central/state government in the cluster
  - g) Regular supervisions and monitoring for more effective and timely implementation of projects
  - h) Facilitate collaboration and co-ordination between the respective IAs implementing the different verticals
  - i) Dissemination of learning to other potential clusters in the UT through publications and stakeholder workshops
- 5.4.2. CDC will be headed by a Managing Director, JKHPMC. The dedicated team of CDC shall comprise a minimum of 10 officials from the line departments having relevant experience and expertise across all the verticals of Programme. The PMU shall also provide technical support to CDAs, assist in programme outreach, cluster gap assessment, inviting Call for Proposal for IAs, appraisal of proposals etc.

## **6. Implementing Agency (IA)**

6.1 The CDA will float a composite Call for Proposal for all verticals of the cluster, based on the Cluster Gap Assessment Report. Implementing Agencies for different project verticals will be selected in an open and transparent selection process in accordance with relevant General Financial Rules (GFR).

6.2 Entities eligible for becoming IAs include Farmer Producer Organisations (FPOs/FPCs) and their federations, Cooperatives/Societies, Partnership Firms, Proprietorship Firms, Companies, State Agriculture and Marketing Boards and Federations and other Public Sector entities of Central/State Governments.

### **6.3 Eligibility Criteria for IAs**

- a. The applicant entity should have a net-worth<sup>1</sup> of minimum two times of the proposed equity contribution as per the latest audited balance sheet.

In case a new entity is proposed to be established as Implementing Agency, the following will be applicable:

- I. The Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.

- II. Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.
- b. IA should contribute at least 20% of the eligible project cost as promoters' contribution.
  - c. IA must bring at least 20% of eligible project cost as term loan from scheduled commercial banks/RBI approved Financial Institutions (FIs).
  - d. In-principle<sup>2</sup> or final term loan sanction by bank along with the bank appraisal note.
  - e. IA must have relevant experience as an agri/horti/dairy/pisci/livestock input supplier/producer/aggregator/trader/food processor/exporter/retailer/logistics provider, etc., depending on the vertical applied for.
  - f. The applicant entity and/or its shareholder(s)/partner(s)/director(s)/key management person has not defaulted on its debt obligations in the last three years and should not appear in the RBI list of wilful defaulters or any such list by a competent authority in their respective jurisdiction. The applicant entity or its shareholder(s) have not been classified as 'non-performing asset' 'NPA' or such similar classification by any lender.

#### **Note**

- a) In the case of a central/state government entity, the requirement of term loan will not be mandatory, provided the IA meets the contribution through its own resources.
- b) In the case of a central/state government entity, the loan/financial contribution sanctioned<sup>3</sup> by the state government will also be considered as a term loan.
- c) The date of in-principle sanction/final sanction letter should be after the date of publication of Call for Proposals.
- d) New entity shall mean legal entity registered under the provisions of applicable act for the purpose of setting of project under the programme guidelines.

#### **6.4 Roles and Responsibilities of IAs**

- a) Preparation of the Detailed Project Report (DPR)<sup>4</sup>
- b) Achieve financial closure as per approved means of finance
- c) Obtain all statutory approvals/clearances required for the project
- d) Receive financial assistance under the programme and ensure its utilisation in a transparent and judicious manner
- e) Dovetail and integrate initiatives of other ministries/departments for holistic development of clusters of specific products.
- f) Upload monthly progress report along with photographs/videos of the project on the portal
- g) Maintain proper books of accounts of the project implementation and maintenance of infrastructure after the commissioning of the project
- h) Ensure effective and timely implementation of the project within specified timelines and coordinate with other IAs in the cluster and the CDA
- i) IAs shall follow CVC guidelines and procurement manuals of Ministry of Finance

##### **6.4.1. Coverage of UT Level Food Processing Programme for Development of Clusters for Specific Products of J&K**



The Programme will promote identified clusters/districts as well as assist in the development of additional/adjoining potential clusters/districts. The clusters have been classified into - Mega, Midi, and Mini clusters based on production of focus product as under:-

Sl. No.	Cluster Category	Parameter
		<b>Production* of Cluster product in MT</b>
1.	Mega	More than 10,000 MT
2.	Midi	More than 5,000 MT to 10,000 MT
3.	Mini	Up to 5,000 MT

*\*Production of focus product in the identified and adjoining clusters/districts (Contiguous & Non-contiguous)*

## 7. Pattern of Assistance

- 7.1 Financial assistance will be provided based on the three different categories of clusters as defined above, in terms of - Mega, Midi, and Mini Clusters. The quantum of financial assistance admissible for each cluster has been listed below:

*(Rs. in Cr)*

Sl. No.	Type of Cluster	Amount of financial assistance admissible per Cluster
1.	Mega	Up to 50
2.	Midi	Up to 25
3.	Mini	Up to 12.5

- 7.2 The actual financial assistance for each vertical shall be decided based on the Cluster Gap Assessment and DPRs submitted by the IAs. A maximum of 40% of the total financial assistance can be utilised within a single vertical based on the requirement of the Cluster as indicated in the Cluster Gap Assessment. This limit may be relaxed in case of an integrated project by a single Implementing Agency. However, the maximum financial assistance for the cluster as a whole shall remain as specified in clause 7.1.
- 7.3 UT Govt. shall provide financial assistance to the CDA in an Escrow Account to implement the programme and CDA will further disburse the eligible amount of financial assistance to the IAs in a dedicated Trust and Retention Account (TRA), on achievement of the milestones prescribed for release of financial assistance, strictly as per the provisions of the programme guidelines and in accordance with relevant General Financial Rules (GFR).
- 7.4 Considering the complexities and challenges associated with agriculture and allied sector projects, the IA may dovetail assistance available under various other schemes of the central/state government to improve the viability of the projects. The IA cannot avail financial assistance for same project component/activity of the project from any other Ministry or Department of the Government of India

or State Government or their agencies.

- 7.5 The IA shall also be eligible for financing facility available under Agriculture Infrastructure Fund (AIF) in addition to financial assistance under any other scheme of centre or state government for the components eligible under AIF.

## 8. Applicable Cost Norms

- 8.1 The quantum of financial assistance shall be decided based on MoFPI/NHB/MIDH<sup>5</sup> or any other applicable cost norms for various components unless otherwise specified. The basis of cost norms of the various components for determining the eligible project cost shall be as follows:

S.No.	Components	Ministry/Department
1	Formation of FPOs and capacity-building of farmers/FPOs	Ministry of Agriculture and Farmers Welfare (MoA&FW)
2	Farm-level interventions including micro-irrigation	
3	Farm machinery and custom hiring centres	
4	Irrigation infrastructure and organic farming including GAP	
5	Post-harvest and value addition infrastructure	MoA&FW/MoFPI <sup>6</sup> /APEDA <sup>7</sup>
6	Logistics and Marketing	

### Notes:

- f) Any expenditure incurred before the approval of the project shall not be eligible for financial assistance.
- g) Any other component, apart from those mentioned in the programme guidelines, can be covered as per the existing cost norms of the relevant Ministry/Department depending upon the need of the Cluster, based on Cluster Gap Assessment.
- h) Wherever cost norms are not available, especially in the case of digital/innovative interventions/branding, etc., UT Govt. shall determine the cost of these components.
- i) In case of any revisions/amendments in the Centre/State cost norms, the latest norms shall be applicable for determining the project cost.
- j) All equipment/plant and machinery for the project should be new. Reconditioned/refurbished equipment/plant and machinery will not be eligible for financial assistance.

## 9. Eligible Components

The actual configuration of the components will vary depending upon cluster requirements, the Cluster Gap Assessment Report and the DPR submitted by the IA. The indicative list of eligible components determining eligible project cost is as follows :-

Project Vertical	Programme Components
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<p><b>1. Pre-production and Production</b></p> <p><i>(CDA will develop this vertical in collaboration with the line Departments as per TWG for key interventions)</i></p>	<ul style="list-style-type: none"> <li>• Formation and promotion of FPOs</li> <li>• Capacity-building of Farmers/FPOs</li> <li>• Awareness campaigns/Exposure visits</li> <li>• Hi-tech nurseries and tissue culture labs</li> <li>• Quality control labs</li> <li>• Procurement/import and distribution of quality planting material</li> <li>• Area Expansion/Diversification</li> <li>• Adoption and dissemination of Good Agricultural Practices</li> <li>• Promotion of crop-care practices, including Maximum Residue Levels (MRL), INM and IPM practices</li> <li>• Micro-irrigation, farm mechanisation and advanced farming techniques like precision farming, high-density plantation, usage of drones etc.</li> <li>• Adoption of new technologies and advanced farm machinery for enhancing efficiency.</li> <li>• Real-time market intelligence, IT/Digital innovations, IoT infrastructure, traceability, blockchain, remote sensing, weather station and farm management software, precision farming etc.</li> <li>• Development and dissemination of IEC material to promote diversification</li> <li>• Technical assistance from various National and International organisations/universities/other institutes</li> <li>• Any other activity/components required within the vertical for holistic cluster development</li> </ul>
<p><b>2. Post-harvest Management and Value Addition</b></p>	<ul style="list-style-type: none"> <li>• Establishment/expansion/modernisation of cluster-level infrastructure such as Collection Centres, Reefer Vans, Integrated pack-house, Ripening chambers, pre-cooling units, Cold Rooms, Primary, Secondary and Tertiary Processing Units, Packaging Units and Value addition</li> <li>• Cold storage infrastructure including multi/temperature-controlled atmosphere cold storages and other related utilities</li> <li>• Packaging standards and other ancillary facilities required for post-harvest handling of produce</li> <li>• Other utilities/ancillaries and material handling equipment related to the project</li> <li>• Any other activity/components required within the vertical for holistic cluster development</li> </ul>
<p><b>3. Logistics, Marketing and Branding</b></p>	<ul style="list-style-type: none"> <li>• Development of transport, cold chain and other logistic infrastructure from farm gate to the domestic market and up to the exit point for export markets</li> <li>• Appropriate packing, storage and material handling infrastructure to promote the use of alternative multi-modal means for seamless transport leveraging Dedicated Freight Corridors, Krishi Udan, Kisan Rail, Inland Waterways, etc.</li> <li>• Establishment of market linkages in identified domestic and export markets</li> <li>• Develop and promote distinct 'Cluster Brands' for identified clusters on common agreed values, such as nutritional and nutraceutical</li> </ul>

	<p>values of variety, Good Agricultural Practices (<i>GAP</i>), Good Manufacturing Practices (<i>GMP</i>), HACCP (<i>Hazard Analysis and Critical Control Points</i>), food safety and environmental sustainability, among others</p> <ul style="list-style-type: none"> <li>• Leverage e-commerce platforms and digital marketing for bringing efficiency and as an alternate mode of market outreach</li> <li>• Facilitate the development of sea protocols for long distance transportation</li> <li>• Assist in the promotion of Cluster produce through GI tagging, marketing campaigns (print/electronic), road shows/buyer seller meet, product sampling in target markets</li> <li>• Collation and dissemination of market intelligence with inputs on real-time market needs including export protocols</li> <li>• Other utilities/ancillaries and material handling equipment related to the project</li> <li>• Any other activity/components required within the vertical for holistic cluster development</li> </ul>
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**Notes:**

- a) The above is only an indicative list and CDA and IA may suggest additional components as per the requirement of each cluster. The components suggested by IA will invariably need the approval from the CDA.
- b) Components of up to 5% of the approved project cost can be changed with prior intimation to CDA. Any deviations/changes beyond 5% in the approved project components, changes in means of finance etc. shall be considered by Approval Committee based on the recommendation of CDA.

**10. Ineligible Components**

The following components will be considered as non-technical civil work/ineligible components and will not be considered for financial assistance under the CDP:

- i. Cost of land
- ii. Site development (excavation, filling, etc.)
- iii. Approach road/Internal roads
- iv. Administrative office building/guest house etc.
- v. Compound wall
- vi. Canteen/restaurants etc.
- vii. Preliminary and Pre-operative Expenses including Interest During Construction (IDC)
- viii. Fuel, consumables, spares and stores
- ix. Second hand/old machines
- x. Reconditioned and refurbished plant & machinery
- xi. Expenditure on painting of machinery
- xii. All applicable taxes, insurance, working capital and margin money for working capital
- xiii. All types of service charges, carriage and freight charges
- xiv. Stationery items

- xv. Operational cost including rentals, salaries, cost of raw material, maintenance cost, etc.
- xvi. Other components not related to the project vertical

## **11. Call for Proposals for Selection of IAs**

- 11.1 JKHPMC will invite a composite Call for Proposals for all verticals of a cluster, based on the Cluster Gap Assessment Report.
- 11.2 Applicants will have the flexibility to apply for a single vertical, multiple verticals or an integrated project covering all the verticals of the CDP for financial assistance.
- 11.3 The applicants are required to submit complete proposals, along with a DPR and other relevant documents, as prescribed in the application format, as per Annexure II. The list of documents to be submitted by the applicant is provided in Annexure III.

## **12. Evaluation and Approval Committee**

### **12.1 Evaluation Committee**

JKHPMC will constitute an Evaluation Committee (EC) to conduct the technical evaluation of proposals received in response to Call for Proposals, for recommendation to the UT Level Approval Committee.

The structure of the Evaluation Committee (EC) will be decided separately post approval of the operational guidelines.

### **12.2 Approval Committee**

It is proposed that Govt. of J&K will constitute a UT Level Approval Committee (AC) for final selection of IAs after taking into consideration the recommendation of Evaluation Committee and presentation made by the IAs.

The structure of the Approval Committee (AC) will be decided separately post approval of the operational guidelines.

## **13. Approval Process**

- 13.1 JKHPMC will conduct a Technical Evaluation of the proposals on a scale of 100 points as per the scoring criterion given in the Annexure - IV. Thereafter, the EC will consider the Technical Evaluation of proposals and submit its recommendation along with technical scores for consideration of the Approval Committee.
- 13.2 The applicants recommended by EC will be invited to make presentations of their proposals before the AC.
- 13.3 AC will evaluate the presentations on a scale of 50 as per the scoring criterion given in Annexure - IV.
- 13.4 AC will prepare a merit list of proposals based on the combined scores awarded by EC and AC for the final selection.
- 13.4 Proposal scoring the highest marks in each vertical of a cluster will be accorded the final approval.
- 13.6 Proposals scoring the second and third highest marks in each vertical shall be kept in the waitlist. If the selected IA is unable to implement the project, the waitlisted applicants shall be given the opportunity in the order of merit.

## **14. Role of Programme Management Unit**

A dedicated PMU team (*Consultants*) for the UT Government shall be responsible for the overall project management and coordination. The PMU could work under the overall aegis of JKHPMC. The PMU of the programme shall undertake the following :-

1. Define the review and governance mechanism for the entire programme
2. Provide implementation support on a day-to-day basis
3. Develop clear set of dashboards, scorecards and matrices to track programme
4. Conduct regular reviews with relevant stakeholders to discuss and track overall progress
5. Support with any bottlenecks and contribution between different stakeholders and government departments.
6. Support in designing and implementing corrective action plan
7. Highlight any major roadblock/challenge and ensure timely intervention.

The contribution of private players in ensuring a successful and robust PPP model to solve the challenges for crop specific value chain would be critical. The private players would need to take initiative, work closely with the farmers and provide them with the following support.

1. **Identification of winning crop and variety selection:** Guide farmers on the crops and variety that are required in processed food products with highest demand in the national and international markets and healthy profitability.
2. **Provide advisory services:** Give advice on best-in-class practices to be followed for farming including knowledge on right set of agri-inputs to be used and extent of use of fertilizers/pesticides to ensure high productivity and good quality.
3. **Enable access to agri-inputs:** Ensuring farmers have access to right kind of agri-inputs at affordable prices.
4. **Fair price at short interval:** Provide fair remuneration in short intervals to farmers to generate royalty among them
5. **Ensure assured demand off take:** To provide sustainability to the farmers in the long run

A successful PPP model will have reciprocal benefits for private players including:

1. **Consistent Supply:** Long term contracts and association with the farmers will ensure they get consistent supply as per their requirement from the farmers
2. **High Quality:** Working closely with the farmers and ensuring they follow best in-class practices will enable farmers to produce and supply high quality product.
3. **Fair Price:** By following best in-class practices along with quality, the farmers will also be able to improve their productivity and thereby reduce their cost of production-thus enabling them to sell their produce at a competitive price and also earning a fair return in the process

JKHPMC (CDA) shall hire Consultants to assist UT Govt. and JKHPMC for overall implementation of the programme with following activities :-

- i. Assist in organising workshops/media campaigns and other outreach activities for sensitising potential stakeholders about the programme.
- ii. Assist in the preparation of a Memorandum of Agreement (MoA) to be signed between CDA and IAs outlining roles and responsibilities.
- iii. Assist in the preparation of a draft Agreement/MoU to be signed by UT Govt-JKHPMC (CDA)
- iv. Prepare model DPRs, which can be used by IAs as reference for the preparation of vertical-specific DPRs.
- v. Assist in the real-time monitoring and evaluation dashboard for streamlining the implementation and undertaking corrective action, whenever required.
- vi. Assist in periodic review, supervision and monitoring of project implementation in specific clusters and in the overall implementation of the programme.

- vii. The Consultants shall also assist the JKHPMC (CDA) in following activities:
    - a. Undertaking necessary liaison, outreach and coordination with UT Government and their agencies
    - b. Analysing gaps in the cluster and preparation of the Cluster Gap Assessment Report covering all verticals of the Programme
    - c. Ensuring end-to-end coverage of all interventions covering entire value chain of the targeted products
    - d. Drafting and inviting the Call for Proposals based on Cluster Gap Assessment
    - e. Evaluation of proposals including DPR and other requisite documents received from IAs for various verticals
    - f. Drafting and issuing of approval letters to the IAs and their onboarding
    - g. Coordination among all IAs for smooth project execution
    - h. Identifying and dovetailing the schemes of Central/State Government
    - i. Undertaking site visits to verify physical and financial progress, verification of requisite documents submitted by IAs for release of financial assistance as per the programme guidelines
- 15. Release of funds by UT Govt. to JKHPMC (CDA)**
- a) For administrative expenses: JKHPMC (CDA) can utilise up to a maximum of 5% of the financial assistance approved for the Project as administrative expense. However, purchase of vehicle and construction of buildings will not be permitted out of these funds. Proportionate payment to JKHPMC (CDA) during the first year shall be paid in advance on a half-yearly basis, subject to the submission of utilisation certificate. Payout towards administrative expenses from the second year onwards will be linked to actual progress of the cluster, monitored through achievements of milestones as defined in the programme guidelines.
  - b) For disbursements to IAs: On approval of the project, UT Govt. shall release an amount of 30% of the maximum financial assistance approved for the Project in an Escrow Account of JKHPMC (CDA). Any further disbursements to the JKHPMC (CDA) shall be on submission of utilisation certificate for the assistance already released and physical and financial progress of approved projects. JKHPMC (CDA) shall make disbursements to IAs on achievement of specific milestones as per the conditions for release of financial assistance provided under clause 16.

## **16. Release of funds to Implementing Agency (IA)**

16.1 The financial assistance will be released by JKHPMC (CDA) to IAs subject to the fulfilment of conditions prescribed for each instalment, as listed below.

16.1.1. First instalment of 30% of the total approved financial assistance will be released within 12 months from the date of approval, subject to the fulfilment of the following criteria:

- i. Establishment of a Trust and Retention Account (TRA) and signing of the TRA Agreement with any Schedule Bank
- ii. Submission of the final Term Loan sanction letter from the scheduled commercial banks/FIs
- iii. Submission of surety bond on non-judicial Rs.100 stamp paper
- iv. PFMS (CGA) Registration of IA
- v. Submission of invoices/receipts/work orders with regard to expenditure of at least 30% of the eligible project cost on the approved project components.
- vi. Submission of a bank/financial institution certificate with regard to the disbursement of 30% of term loan by the lending bank.

- vii. Submission of TRA statements for verification of promoters' equity, term loan and project expenditure.
  - viii. Achieving minimum coverage of 30% of targeted production as per the approved DPR.
    - Statutory auditor certificate confirming the actual expenditure on the project, along with means of finance in the prescribed format, duly certified by a Statutory Auditor and countersigned by the promoter. It should ensure that at least 30% of the promoters' contribution and 30% of the term loan have been utilised on the eligible project cost by IA. Details of unsecured loan (along with PAN numbers of lenders), if any, duly certified by the Statutory Auditor and countersigned by the promoter are to be given.
  - ix. Submission of recommendation by PMU based on their site visit and evaluation of documents submitted by IAs. The recommendation shall confirm fulfilment of conditions as per t
    - ry approvals/clearances required for project establishment are to be obtained.
  - xii Any other condition which may be specified from time-to-time.
- 16.1.2. Second instalment of 30% of the total approved financial assistance under the programme will be released within 24 months from the date of approval, subject to fulfilment of the following criteria:
- i. Utilisation certificate as per the format of GFR-19 of the first instalment of financial assistance, duly certified by the chartered accountant
  - ii. Utilisation/expenditure of the first instalment of financial assistance released in the Excel sheet uploaded in EAT MIS process
  - iii. Submission of invoices/receipts/work orders with regard to the expenditure incurred on the project, related to the proof of proportionate expenditure by IA from the term loan, and equity equivalent to the financial assistance amount released as second tranche of the first instalment
  - iv. Submission of a bank/financial institution certificate with regard to the disbursement of 60% of term loan by the lending bank
  - v. Submission of TRA statements for verification of promoters' equity, term loan and project expenditure
  - vi. Achieving minimum coverage of 60% of targeted production as per the approved DPR
  - vii. Completion of 35% of the components as per the approved DPR
  - viii. Statutory Auditor certificate confirming actual expenditure on the project along with means of finance in the prescribed format duly certified by the Statutory Auditor and countersigned by promoter. It should ensure that at least 60% of the promoters' contribution and 60% of the term loan, along with financial assistance released, have been utilised on the eligible project cost by IA. Details of unsecured loan (along with PAN numbers of lenders), if any, duly certified by the Statutory Auditor and countersigned by the promoter are to be given.
  - ix. Submission of recommendation by PMU based on their site visit and evaluation of documents submitted by IAs. The recommendation shall confirm fulfilment of conditions as per the programme guidelines in order to release the financial assistance.
  - x. Any other condition which may be specified from time-to-time
- 16.1.3. Third instalment of 30% of the total approved financial assistance under the programme will be released within 36 months from the date of approval, subject to fulfilment of the following criteria:
- i. Utilisation certificate as per the format of GFR-19 of the second instalment of financial assistance duly certified by the statutory auditor



- ii. Utilisation/expenditure of the second instalment of financial assistance released in the Excel sheet uploaded in EAT MIS process
- iii. Submission of invoices/receipts/work orders with regard to the expenditure incurred on the project, with regard to proof of proportionate expenditure by IA from term loan, and equity equivalent to the financial assistance amount released as the second instalment
- iv. 100% coverage of targeted production as per the approved DPR
- v. Completion of 70% of the components as per approved DPR
- vi. Submission of a bank/financial institution certificate with regard to the disbursement of 90% of term loan by the lending bank
- vii. Submission of TRA statements for verification of promoters' equity, term loan and project expenditure

Statutory Auditor certificate confirming actual expenditure on the project along with means of finance in the prescribed format duly certified by the Statutory Auditor and countersigned by the promoter. It should ensure that at least 90% of the promoters' contribution and 90% of the term loan, along with financial assistance released, have been utilised on the eligible project cost by IA. Details of unsecured loan (along with PAN numbers of lenders), if any, duly certified by the Statutory Auditor and countersigned by the promoter are to be given.

- viii. Submission of recommendation by PMU based on their site visit and evaluation of documents submitted by IAs. The recommendation shall confirm fulfilment of conditions as per the programme guidelines in order to release the financial assistance.
- ix. Any other condition which may be specified from time-to-time

16.1.4. Fourth and final instalment of 10% of the total approved financial assistance under the programme will be released within 48 months from the date of approval, subject to the successful completion of project and fulfilment of the following criteria:

- i. Utilisation certificate as per the format of GFR-19 of the third instalment of financial assistance duly certified by the statutory auditor
- ii. Utilisation/expenditure of the third instalment of financial assistance released in the Excel sheet uploaded in EAT MIS process
- iii. 100% completion of project in all respects
- iv. Submission of invoices/receipts/work orders related to the expenditure incurred on the project
- v. Submission of a bank/financial institution certificate with regard to the disbursement of 100% of term loan by the lending bank
- vi. Submission of bank statements related to the 100% contribution of promoters' equity, term loan and financial assistance accounts for verification of contribution and expenditure
- vii. Statutory Auditor certificate confirming actual expenditure on the project along with means of finance, duly certified by the statutory auditor and countersigned by the promoter. It should establish that 100% of the promoter's contribution, 100% of the term loan and the third instalment of financial assistance have been utilised in the project. Details of unsecured loan (along with PAN numbers of lenders), if any, duly certified by the Statutory Auditor and countersigned by the promoter are to be given.
- viii. Joint inspection/site visit by a team comprising members from UT Govt., JKHPMC (CDA), PMU, bank and any other concerned department of the government
- ix. Submission of recommendation by PMU based on their site visit and evaluation of documents submitted by IAs. The recommendation shall confirm fulfilment of

- conditions as per the programme guidelines in order to release the financial assistance
- x. Valid consent to operate from central/state pollution control board, wherever applicable
  - xi. Valid clearance/approval for power and water connections, if applicable
  - xii. Declaration of the completion of project and start of commercial operation, duly certified by the bank, wherever applicable
  - xiii. Registration certificate of logo and trademark for the cluster product/value chain brand developed, wherever applicable
  - xiv. Accreditation certificate for nurseries and Quality labs, wherever applicable
  - xv. Registration certificate of reefer vans, wherever applicable
  - xvi. FSSAI licence, wherever applicable
  - xvii. Registration/license with Warehousing Development & Regulatory Authority (WDRA)/APEDA, wherever applicable
  - xviii. Any other condition which may be specified from time-to-time

#### **Note**

- a. All the requisite documents for the release of financial assistance shall be self-attested by the authorised signatory of the IA. The IA should submit signed and stamped CA certificate for details of expenditure, Certificate from Chartered Engineer (Civil) for civil works and Chartered Engineer (Mechanical) for plant and machinery or any other relevant certificates indicating item-wise progress on approved components, cost, quantity, manufacturers/suppliers and comment on quality and status of implementation, duly countersigned and stamped by the promoter, if applicable.
- b. Financial assistance shall be provided for the project subject to availability of the funds and continuation of the programme.
- c. During the period of project implementation, if the IA account turns into a non-performing asset, in accordance with the guidelines/notifications of Department of Financial Services (DFS)/Reserve Bank of India (RBI), UT Govt. on confirmation from the JKHPMC (CDA) may close the project on an 'as is where is' basis and recall the entire amount of financial assistance. UT Govt. also retains the right to curtail/recall the financial assistance along with the applicable penal interest in case of unsatisfactory use of the financial assistance including compromise with the quality of components as envisaged, or partial/incomplete implementation of the project.
- d. A dispute redressal mechanism forum shall be set up under UT Govt. to resolve any disputes which arise during the implementation of the project. The decision of UT Govt. in such matter shall be final.

#### **17. Timelines**

- i. The timelines for completion and operationalisation of the project will be 48 months, as detailed below, from the date of issue of the final approval letter, unless extended by the Competent Authority.
  - ii. Schedule for completion of project milestones:

S. No.	Particulars	Maximum time period
1	Final approval to release of first instalment	12 months
2	First instalment to release of second instalment	12 months
3	Second instalment to release of third instalment	12 months
4	Third instalment to release of fourth and final instalment	12 months
<b>Total</b>		<b>48 months</b>

- iii. The IA shall ensure project completion as per the stipulated timelines committed, while seeking financial assistance for the project. In case of non-adherence of timelines, except in case of force majeure or reasons beyond the control of IA, the UT Govt. may consider imposing appropriate penalty. For each month's delay beyond the scheduled timeline as specified under clause 17 (ii), the penalty amounting to 1% of instalment due for release shall be applicable, however, shall not exceed more than 10% of the instalment to be released to IA. Approval Committee may extend the timelines on justifiable reasons on case-to-case basis or waive off the penalty based on the project progress and merit of the case.
- iv. The project can be cancelled in case of non-adherence to the timelines, unless extended by the Approval Committee constituted at UT Level.
- v. Note: In case of discord with respect to interpretation of any of the provisions of these guidelines, the decision of the UT Govt. shall be final.

## 18. Programme Monitoring

- i. A UT Level Monitoring Committee is proposed to be constituted under the chairmanship of FC (ACS), APD to meet at least once in a quarter to take stock of progress and to remove bottlenecks, if any.
- ii. JKHPMC will submit a quarterly progress report of the IAs including details of physical and financial progress, number of farmers benefitted, production of the cluster impacted, brand creation for the cluster produce, etc. to the UT Level Apex Committee.
- iii. For overall supervision and guidance at the UT Level, a Steering Committee is proposed to be constituted under the Chairmanship of the VC SKUAST – K/J having participation from all relevant stakeholders with the Managing Director, JKHPMC as its Member Secretary. The Steering Committee will meet at least once in six months.
- iv. Projects under the programme shall be monitored based on the implementation schedule submitted by IA within the overall timelines.
- v. The IA shall regularly update progress on the online dashboard monitoring system, along

with a bi- monthly progress report, including recent photographs of the work.

- vi. IA of the relevant verticals shall be closely monitored on the progress for implementing compliances, best practices, branding and marketing and other set procedures defined.
- vii. JKHPMC and UT Govt. shall obtain periodical feedback from FPOs/Cooperatives/IA and other stakeholders on the implementation of the programme to adopt mid-course corrections, where necessary.
- viii. The Consultants or the PMU for the programme shall assist both JKHPMC (CDA) and UT Govt. in the above activities.

Disclaimer- The programme guidelines are subject to revision from time to time as per the policy directions from Government of UT of Jammu Kashmir

## ANNEXURE - I

### List of the Products and Clusters identified for UT Level Food Processing Programme for Development of Clusters for Specific Products of Jammu & Kashmir

SI No.	Product	Identified Cluster of UT of J&K
1	Meat & Poultry	Srinagar & Kathua
2	Trout	Anantnag & Ganderbal
3	Milk	Pulwama, Jammu
4	Walnut	Kupwara, Kishtwar
5	Vegetables (Conventional/Organic/Exotic/Mushrooms)	Doda, Budgam, Samba & Udhampur
6	Basmati	R S Pura, Samba & Kathua
7	Cherry	Ganderbal & Shopian



9 Districts in  
Jammu



8 Districts in  
Kashmir

## ANNEXURE - II

## APPLICATION FORM

**Application for:**

<b>Name of Cluster</b>	
<b>Focus crop</b>	
<b>Vertical (s)</b>	

### 1. General details of the Applicant:

S. No.	Particulars	Details
i.	Name of applicant with complete contact details - address, Tel/Fax No., Mobile No., E-mail	
ii.	Name of Lead promoter with complete contact details (Name/Designation/Tel. No./Email address)	
iii.	Legal status of applicant (FPO/Cooperative/Producer Group/Company/Partnership Firms/Proprietorship Firm/State Agriculture and Marketing Board and Federation/Central/State Government Organisation and their entity etc.)	
iv.	Applicant is a new entity or an established entity (specify with registration details)	
v.	Registration No./CIN	
vi.	PAN/TIN/TAN	
vii.	GST No.	

### 2. Financial details of the Applicant:

S. No.	Particulars	Details
i.	Cumulative Net worth of the Applicant entity*	
ii.	Average turn-over of the Applicant entity in the last 3 years in the agriculture/horticulture/Dairy/Livestock sector**	1 <sup>st</sup> Year: 2 <sup>nd</sup> Year: 3 <sup>rd</sup> Year: Average:
iii.	Average export turn-over of the Applicant entity in the last 3 years in the agriculture/horticulture/Dairy/Livestock sector**, if applicable	1 <sup>st</sup> Year: 2 <sup>nd</sup> Year: 3 <sup>rd</sup> Year:

		Average:
iv.	Net current assets of the Applicant entity** (Net current asset is the aggregate amount of all current assets, minus the aggregate amount of all current liabilities, to be ascertained as per the latest audited balance sheet)	
v.	Debt Equity ratio of the Applicant entity** (The debt-to-equity (D/E) ratio is calculated by dividing entity's total liabilities by its total shareholder equity, to be ascertained as per the latest audited balance sheet.)	

\* In case a new entity is proposed to be established as Implementing Agency:

- Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable
- Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations with respect to the project. The lead promoter cannot be changed during the project period.

\*\*In case a new entity is proposed to be established as Implementing Agency, turnover, net current assets and Debt Equity ratio of the lead promoter shall be considered.

### 3. Details of the Director(s)/Promoter(s)/Partner(s) of the Applicant:

S. No.	Name of Director(s)/ Promoter (s)/Partner (s)*	Address	Tel/Fax No./Mobile No./E-mail	Aadhar No.	PAN No.	Shareholding pattern (%age)	Net-worth(in Crore)

Please add additional rows, if required

\*Lead promoter of the Applicant to be specified

- Relevant experience of the Applicant entity/lead promoter (in case of new entity) as agri/horti input supplier/producer/aggregator/trader/food processor/exporter/retailer/logistics provider etc.

S. No.	Name of the Applicant entity/lead promoter	Number of years of experience	Details of Projects/ Activities	Details of relevant experience in the Vertical applied for	Supporting Document(s) attached, if any(Yes/No)
1					
2					
Please add additional rows, if needed.					

The following details shall be provided for the vertical of Logistics, Marketing and Branding and Integrated project:

S. No.	Particulars	Detailing	Supporting Documents to besubmitted with DPR
1.	Detail the possession of existing brand/trademark name in the agriculture/horticulture or food processing sector		Details of brand/trademark
2.	Detail the export linkages/trade experience in number of countries. Please specify country wise volume and value of business		APEDA registration and trade/sale invoice/trade document with different countries

**5. Past experience of the Applicant/lead promoter (in case of new entity) in the Cluster/Value Chain of the vertical/verticals applied for:**

S. No.	Particulars	Detailing	Supporting Documents to besubmitted with DPR
1.	Years of working experience in the cluster in the relevant vertical (in Pre-Production and Production, Post-Harvest Management and Value Addition and Logistics, Marketing and Branding)		Relevant supporting documents of work done in cluster
2.	Year wise details of volume and value of the focus crop handled in the cluster for last three years		Buyback and sale invoices
3.	Year wise farmers (in nos.) and area coverage (in Ha) in the cluster for last three years		MoU/Agreement with farmers

**6. Specify the number of Verticals applying for and Select the Vertical(s). In case the applicant is applying for multiple Verticals, specify the details of investment in each vertical:**

S. No.	Particulars	Applying for the vertical (Yes/No)	Investment (Rs in Crore)
1.	Pre-Production and Production		
2.	Post-harvest management and Value addition		
3.	Logistics, Marketing and Branding		

## 7. Profile of the Proposed Project:

### i. Cluster Profile

S. No.	Item	Details
1.	Name of the Cluster	
2.	Name of Districts and Block	
3.	Focus	
4.	Total area coverage of cluster in Ha	
5.	No. of Farmers in the cluster	
6.	Base line indicators- 1. Existing Productivity in Cluster (MT/Ha) 2. Income per Ha for farmers (in Rs.) 3. GAP Certification (%age of farmers covered) 4. Existing Market linkages (names of brands operating in the cluster) 5. Existing export volumes from the cluster (in MT) 6. Existing Infrastructure (details in numbers and capacities)	

### ii. (Project Profile)

S. No.	Particulars	Details
1.	Objective of the Project	
2.	Major Interventions in the Project	
3.	Proposed Project is an expansion or a new project (please specify with details)	
4.	Project Implementation Period (No. of years)	



5.	Proposed area coverage in the target cluster to be covered in the project (in Ha) and in percentage of the total cluster area (an undertaking to be submitted along with the details of area coverage to be mentioned in the DPR)	
6.	Farmers covered in the project directly (in numbers)	
7.	Production to be handled in the project (in MT)	
8.	MoUs/Agreement with farmers/FPOs for availability of appropriate land in line with the project requirements/DPR (number and percentage of farmers covered)	
9.	<p><b>Land related details:</b></p> <p>a. Possession of appropriate land in line with the project requirements/DPR (applicable for post-harvest management and value addition vertical and Integrated project)</p> <p>b. Possessed land has approval for industrial use/NA (applicable for post-harvest management and value addition vertical and Integrated project)</p> <p>c. Suitability of project location (s) from proposed operation and connectivity (Distance in Kms)</p> <ul style="list-style-type: none"> <li>- State/National highway</li> <li>- In-land Container Depot</li> <li>- Railway yard</li> <li>- Sea Port</li> <li>- Airport</li> <li>- Freight Corridor</li> </ul>	
10.	Total cost of the project with year-wise expenditure plan (in case of integrated project). Please detail out vertical wise investment	
11.	Amount of term loan sanctioned from scheduled commercial bank/RBI approved Financial Institutions (FIs). Please specify the term loan approved is In-principal sanction or Final sanction.	
12.	Proposed investment on capacity building of the farmers/FPOs with respect to Good Agricultural Practices, IoT, Crop/Farm Management Solutions, Digital Innovation etc. (applicable for pre-production and production vertical and Integrated project) with details. (value in Cr and in percentage of eligible project cost)	
13.	Dovetailing with other schemes of Central/State	

	government in the project (approval letter from relevant department to be enclosed)	
14.	<p>Expected outputs/outcomes (indicate details)</p> <p>I. Expected Incremental increase in farmer's income</p> <p>II. Increase in crop productivity in MT per Ha.</p> <p>III. Reduction in cost of production</p> <p>IV. Quality of produce enhancement (GAP certifications done for the farmers)</p> <p>V. Increased price realisation for produce</p> <p>VI. Increase in volume of exports</p> <p>VII. New infrastructure created</p> <p>VIII. New Cluster brand created</p>	

iii. Proposed components under the project:

A. Pre-Production and Production

S. No.	Component Details	New/Upgradation	Area Coverag	Number of farmers	Time Period for Implementati	Basic Cost(in	Taxes and other misc. cost (in Rs.	Total Cost (in Rs. Cr)
<b>Pre-Production</b>								
e.g.	Nursery							
	Area Expansion							
	Capacity Building							
<b>Production</b>								
e.g.	HDP, Promotion of GAP, INM, IPM Spraying, etc.							
e.g.	Weather advisory/ Precision Farming							
Please add additional rows, if needed.								

**B. Post-Harvest Management and Value Addition:**

S. No.	Component	New/Upgradation	Time period	Capacity	Basic Civil Cost	Basic Plant & machinery	Taxes & others/Misc.	Overall Cost (in Rs. Cr)
e.g.	Food Processing Units							
	Cold Storage							
	Integrated Pack Houses							
	Packaging Units							
Please add additional rows, if needed.								

**C. Logistics, Marketing and Branding:**

S. No.	Component	New/Upgradation	Capacity/Numbers/Other Details	Time Period	Basic Cost	Taxes & Other/Misc. Cost	Overall Cost (Rs. in Cr)
e.g.	Reefer Vans						
	Terminal Mandis						
	Digital Marketing						
	Branding & GI tagging						
Please add additional rows, if needed.							

**(iv) Project location details (specify the details of each project component in the Vertical (s))**

- (a) Targeted Area (Village/Block .....
- (b) Proposed location of land for cluster development (*Product specific Infrastructure development*) (Name Village/Dist./State)
- (c) Area of land required (In Ha)
- (d) Status of possession (Owned/Leased/MoU)
- (e) Status of Land Use Conversion (CLU), if applicable

(f) Coordinate Details (Longitude & Latitude)/Geotag Photographs

(iv) **Whether any subsidy has been availed for the proposed components of the project/activity from Central Govt./State Govt. or any of its agencies.** Yes/No

(if YES, please indicate clearly in detail along with supporting documents in the DPR)

.....

.....

(v) **Proposed dovetailing of assistance for the project planned/activity from various schemes of the Central Govt. or State Govt.** Yes/No

(if YES, please indicate clearly in detail along with supporting documents in the DPR)

.....

.....

**8. Project Financials and Business Plan:**

**(a). Proposed Project Cost Details (share vertical wise details, if applicable)**

S.No.	Component s	Amount (Rs. in crore)
i.		
ii.		
iii.		
iv.		
v.		
vi.		
<b>Total Project Cost</b>		

**(b). Proposed Means of Finance**

S.No.	Source	Amount (Rs. in crore)
i.	Applicant's contribution/equity	
ii.	Term loan	
iii.	Financial assistance under UT Level Food Processing Programme for Development of Clusters for Specific Products of J&K	
iv.	Unsecured loan	
<b>Total</b>		

**Note: - Detail out the additional financial assistance proposed to be leveraged from other**

**Central/State Government schemes**

**(c). Basic Revenue Projections (for 10 years)**

S.No.	Item	Year 1	Year 2	Year 3	Year 5	Year 7	Year 10
i.	Days of operation of each of the facilities per annum						
ii.	Breakup of Revenue earnings from different Facilities per annum						
iii.	Total Annual Turnover						
iv.	Cost of operation per annum						
v.	Gross profit						
vi.	Profit before taxation						
vii.	Profit after tax						

**(d). Financial Parameters (as per Bank Appraisal Note)**

S No.	Particulars	Details (Ratio/percentage)	Ref Page No.
i.	Internal Rate of Return (IRR) - with grant - without grant		
ii.	Return on Investment/Capital Employment (ROI = PAT/Project Cost)		
iii.	Avg. Debt Service Coverage Ratio (DSCR)		
iv.	Break Even Point (BEP)		
v.	Debt-Equity Ratio		

**9. Project Implementation Schedule**

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## 10. Project Impact

### (i) Projected Output and Outcome Year-wise

S.No.	Year	Output (Implementation of various project activities/components)	Outcome (Increase in farmer income, yield, price realization, exports etc.)
1.	Year – 1		
2.	Year – 2		
3.	Year – 3		
4.	Year – 4		

### (ii) Employment Generation Projections

- a. Direct Employment: .....
- b. Indirect Employment: .....

**Declaration** – This is to certify that the above information has been verified and is true as per my knowledge concern.

I also confirm that the applicant entity and/or its shareholder(s)/partner(s)/director(s)/key management person has not defaulted on its debt obligations in the last three years and should not appear in the RBI list of willful defaulters or any such list by a competent authority in their respective jurisdiction. The applicant entity or its shareholder(s) have not been classified as ‘non-performing asset’ or such similar classification by any lender.

**Signature of the authorized  
representative of applicant**

**Date:** \_\_\_\_\_

**Place:** \_\_\_\_\_

*Note: All the information provided above in the application format shall have referencing (mention clause and page number) with the DPR enclosed*

## Annexure - III

### The list of information to be covered in the Call for Proposals for Final Approval

#### A. Detailed Project Report:

Table of Contents for the Detailed Project Report to be submitted by the Applicant for the targeted vertical (other items to be added as per the project requirement)

##### 1. Project Snapshot

1.1. Brief of the proposed project with references as per the Detailed Project Report

##### 2. Proposed Cluster Profile

2.1. Details of the cluster including information like cluster map, total area under the focus product,

number of farmers associated, block-wise production analysis etc.

## **2.2. Value Chain assessment of the focus product**

**2.3. Need-Gap analysis (for the opted vertical i.e., Pre-production & Production, Post-harvest Management & Value Addition and Logistics, Marketing & Branding)**

**2.4. Details of Processing and logistics scenario in the cluster**

**2.5. Identification of Strengths, Weaknesses, Opportunities and Threats of the cluster**

**2.6. Global best practices and quality standards being adopted for the selected product**

## **3. Applicant Profile**

**3.1. Names and brief profiles with annual turnover of the proposed promoters/shareholders of the applicant alongwith their contact details (specify the name and contact details of the coordinating member for the project)**

**3.2. Indicate the nature and location of existing operations of the applicant**

**3.3. Relevant experience of the applicant in the focus cluster/value chain, as per the selected vertical of the programme**

**3.4. Details of past experience in domestic and export trade (if applicable). The experience may be detailed out for Logistics, Marketing and Branding Vertical as specified below**

**3.5. Possession of existing brand/trademark (domestic and export) name in the horticulture sector**

**3.6. Presence/trade experience in a number of countries, elaborate**

**3.7. Financial details of the applicant entity such as net-worth, net current asset and debt equity ratio and turnover along with audited Balance sheets for the last 3 years or Chartered Accountant (CA) Certificates. In the case of companies, CA certificates need to be certified by their statutory auditor(s).**

**3.8. A brief note as to why the applicant is keen to undertake the development of the cluster project, their vision, etc.**

**3.9. In case of formation of a new Entity, the details of the Entity, including the shareholding pattern**  
Any other relevant information that would establish the credentials and suitability of the promoters in the context of the scheme

## **4. Proposed Project Profile**

**4.1 Project Rationale for the proposed project**

**4.2 Area coverage under the project for the focus product in the target cluster**

**4.3 Details of interventions in the project vertical opted for, as per programme guidelines**

**4.4 Details of the proposed project components with area required, estimated capacities, and cost for various facilities/activities. In case of upgradation of existing facilities, details of existing components to be specified.**

**4.5 Availability of requisite land (ownership/on lease for 15 years) as per the project need, location and connectivity details along with its GPS co-ordinates**

**4.6 Structure of the project in terms of proposed strategy/methodology for project implementation**

**4.7 Details of farmers covered under the buyback arrangement in terms of area and quantity of the focus product, if applicable**

**4.8 Details of dovetailing of resources**

**4.9 Along with the above, it is mandatory to provide vertical-wise information in the DPR as mentioned below:**

S.No.	Vertical	Particulars
1	Pre-Production and Production	Proposed investment in the project on capacity-building of the farmers/FPOs. Details of MoU/Agreement with farmers/farmer organization/s in the target cluster area for domestic and export linkages. Highlight the area, production and number of farmers directly covered in the cluster
2	Post-harvest Management and Value Addition	Details of MoU/Agreement with farmers/farmer organization/s in the target cluster area for buyback arrangement of raw material commodities and infrastructure development. Highlight the area and number of farmers directly covered in the cluster
3	Logistics, Marketing and Branding	Details of MoU/Agreement with farmers/farmer organization/s in target cluster area for domestic and export linkages. Highlight the area and number of farmers directly covered in the cluster

## 5. Project Financials and Business Plan

- 5.1 Summary of the estimated cost of each of the components of the project vertical for funding by the Government as outlined in the programme
- 5.2 Proposed means of finance to fund the project: promoter's equity, term loan from Nationalized/Scheduled banks, financial assistance sought etc.
- 5.3 The amount of financial assistance needed for the project, as per the cost norms as defined in the programme guidelines
- 5.4 Specify and share the details with respect to the Convergence with other schemes of Central/State governments
- 5.5 Proposed Business Plan – Estimated revenue sources and assumptions, estimated operating costs and assumptions, Projected profit and loss statements, Balance sheets, and cash flows based on these assumptions
- 5.6 Key financial indicators such as RoCE, BEP, NPV, IRR & DSCR based on the above financial assumptions

## 6. Strategy for branding, marketing and export promotion of the target product in the cluster, if applicable

### 7. Details with respect to statutory compliances, risk mitigation strategy etc.

### 8. Project Implementation Plan with year wise outputs and expected outcomes

## B. The list of the documents to be submitted along with the DPR for obtaining Final Approval

- a) Application form duly filled by the applicant in the prescribed template (Refer Annexure II)
- b) The applicants are required to submit a Demand Draft of ₹\_\_\_(Rupees only) as a refundable security deposit and ₹\_\_\_\_\_(Rupees\_\_\_\_\_only) as non-refundable cost of Call for Proposals document in favour of “\_\_\_\_\_”. (The hard copies of the demand draft shall be



submitted by the applicant to the CDA)

- c) Certificate of incorporation/registration of the applicant, Memorandum and Articles of Association in case of Company/Bye-laws of the Society, Co-operative/Registered partnership deed, PAN card, TAN, GST, etc.
- d) Annual Audited Balance sheet for the last three years of the applicant/shareholders/partners/lead promoter (as applicable)
- e) In-principle/Final term loan sanction letter from any Scheduled Commercial Bank/RBI-approved Financial Institution
- f) A detailed bank appraisal note from the Scheduled Commercial Bank/RBI-approved Financial Institution
- g) Land documents - Documents in support of land title being in possession of the IA or registered Sale deed or registered lease deed, for a minimum period of 15 years, if applicable
- h) Documents in support of land title in the name of the applicant or land lease, duly registered with the competent authority. The applicant shall submit the Change in Land Use (CLU) for the proposed project, if applicable.
- i) Copy of MoUs/Agreement with farmers/FPOs
- j) Relevant experience in Export – Invoices/Bill of lading/Letter of Credit/Import Export Code (IEC) copies/Contract copies/Purchase Order related to exports of focus crop, if applicable
- k) Proposed Area & Production coverage in the target cluster– Undertaking confirming the area covered under the focus product for the proposed interventions in the cluster
- l) Statutory Auditor certificate in support of net-worth, net current assets, debt equity ratio, turnover etc. of the proposed project along with the supporting documents suggested as per the programme guidelines
- m) CA certified project cost details and means of finance
- n) Board resolution for confirmation of authorised signatory and for participation as Implementing Agency
- o) Mandate form from Bank
- p) Quotations for Plant and Machinery
- q) The proposed component-wise cost breakup of civil work by the Chartered Engineer, if applicable
- r) The Proposed component-wise cost breakup of plant and machinery by the Chartered Engineer (Mechanical), if applicable
- s) Undertaking to be submitted by the applicant in the prescribed format

### **C. Documents in support of net-worth of the applicant**

The net-worth in the case of Companies will be calculated based on the definition of net-worth in the Companies Act 2013.

#### **1. Private Ltd./Public Ltd. Companies/Cooperatives:**

- a) The net-worth will be ascertained based on the paid-up share capital of the company and reserves created out of profits.
- b) Share application money would be considered towards calculation of net-worth, provided the same has been converted into paid-up capital within the stipulated time as per the Companies Act, but in any case, it should have been converted into paid-up capital before the submission of the proposal.

- c) A computation of net-worth based on latest audited standalone financial statements of the Company, as duly certified by the Statutory Auditor of the company, needs to be submitted along with the application.
- d) In case of Pvt. Ltd./Public Ltd. Companies where a significant portion of its net worth stands invested in equity shares of unlisted companies or is shown as loans & advances to various parties with nil or negligible income/revenue, then following additional documents would be required to be submitted by the applicant to ascertain the net worth:
  - i. Details of Investments made in unlisted companies by the applicant company,
  - ii. Audited Financial Statements (AFS) for the previous year or latest provisional Balance Sheet of the companies wherein the investment has been made,
  - iii. Details of loans & advances along with reasons/justification for the same. In case it is observed that the equity contribution made by the promoter company has been utilised by the investee company in creating tangible assets/Capital work in progress in projects which are under execution then such investments in shares would be considered at face value.
  - iv. However, in case it is observed that the investment by the promoter company is further being reinvested by the investee company in equity shares of unlisted companies or given away as long term/short term advance to individuals/related party/other companies and the investor company has nil/negligible income/revenue, then no additional clarification shall be asked for and the net worth of such promoter company shall be considered after deducting such investments/loans & advances

## **2. Proprietorship/Partnership firms**

The net-worth of all entities other than companies will be ascertained on the basis of the latest Balance sheet of the individual proprietor/partner(s) i.e., assets minus all liabilities, duly certified by the Chartered Accountant (CA) for compliance with the accounting standards issued by the Institute of Chartered Accountants of India (ICAI). The following components will be considered towards net-worth: - Assets include cash, current value of investments, land and building (supported by valuation report at circle rate, circle rate notification and land ownership documents), bonds, cash value of life insurance, current total balance of savings, current or fixed deposit accounts.

### **The following methodology shall be adopted for determining the net-worth:**

- a) Net-worth would be the sum of the net-worth of individual partners and the partnership firm (avoiding duplication of the investment in the partner's capital account of the firm) and the investments of each individual partner towards the partnership firm.
- b) If the applicant is an ongoing partnership/proprietorship firm and the applicant has submitted an audited Balance sheet of such a partnership/proprietorship firm, the net-worth based on the audited Balance sheet will be taken into consideration. However, if the net-worth as per the Balance sheet is insufficient, then the CA-certified statement of Assets and Liabilities of the individual Partners/Proprietors will be taken into consideration, provided the assets are supported with relevant documents as per the guidelines.

In case the proposed applicant is a new entity then the CA-certified statement of Assets and Liabilities of the individual Partners/Proprietors will be taken into consideration, provided the assets are supported with relevant documents as per the guidelines.

- c) However, since in a partnership/proprietorship firm, liability of the partners/proprietors is unlimited, the applicant should submit a CA-certified "Nil Liability Statement" or Statement of "Assets and Liabilities" of the individual partners/proprietors and the net liabilities based on these statements will be deducted while ascertaining the net-worth.
- d) The aforementioned net-worth components need to be supported by relevant documents.

- e) Shares of unlisted companies will be considered at face value for net-worth and shares of listed companies will be considered based on the average market price of the share for a period of 6 months prior to the date of submission of the proposal.
- f) Assets such as car, jewellery, antiques, gold etc. will not be considered for net-worth.
- g) Loans and advances given to group companies/related concerns/individuals will also not be considered towards computation of net-worth.
- h) The applicant(s) will have to give a self-certification regarding the details of the encumbrance of the property submitted by them towards the net-worth.

**3. In case a new entity is proposed to be established as Implementing Agency, the following is applicable:**

- a) Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.
- b) Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.
- c) The turnover, Debt Equity ratio and net current assets of the lead promo all be considered **Annexure - IV**

**a) Criteria for Technical Evaluation of Call for Proposals by the EC for Pre-production and Production Vertical**

Sl. No.	Criteria	Max. Score
<b>Applicant's profile (50 marks)</b>		
<b>1.</b>	<b>Cumulative net-worth<sup>8</sup> of applicant entity*</b>	
	Net-worth more than 4 times of the proposed equity contribution	15
	Net-worth more than 3 times but less than 4 times of the proposed equity contribution	10
	Net-worth more than 2 times but less than 3 times of the proposed equity contribution	5
<b>2.</b>	<b>Average turnover of applicant entity in the last three years in horticulture sector**</b>	
	Mega cluster: >= Rs. 50 crore Midi cluster: >= Rs. 25 crore Mini cluster: >= Rs. 10 crore	15
	Mega Cluster: Rs. 25 Cr < Rs.50 crore Midi Cluster: Rs. 10 Cr < Rs. 25 crore Mini Cluster: Rs. 5 Cr < Rs. 10 crore	10
	Mega Cluster: Rs. 10 Cr < Rs. 25 crore Midi Cluster: Rs. 5 Cr < Rs.10 crore Mini Cluster: Rs. 1 Cr <	5

	Rs. 5 crore	
<b>3.</b>	<b>Net current assets<sup>9</sup> of the applicant entity</b>	
	More than 50% of the proposed equity contribution	10
	Between >30% – 50% of the proposed equity contribution	5
	Between 10% - 30% of the proposed equity contribution	3
<b>4.</b>	<b>Debt Equity Ratio<sup>10</sup> of the applicant entity</b>	
	Ratio less than 2	10
	Ratio between 2 – 3	5
	Ratio more than 3	3
<b>Project Profile (50 marks)</b>		
<b>5.</b>	<b>MOUs/Agreement<sup>11</sup> with farmers/FPOs for availability of appropriate land in line with the project requirements/DPR</b>	
	Covering more than 25% of farmers targeted in line with the DPR	5
	Covering 10-25% of farmers targeted in line with the DPR	2.5

<b>6.</b>	<b>Proposed area coverage in the target cluster</b>	
	Mega cluster: Area coverage > 25% Midi cluster: Area coverage > 30% Mini cluster: Area coverage > 35%	15
	Mega cluster: Area coverage > 15-25% Midi cluster: Area coverage > 20-30% Mini cluster: Area coverage > 25-35%	10
	Mega cluster: Area coverage > 5-15% Midi cluster: Area coverage > 10-20% Mini cluster: Area coverage > 15-25%	5
<b>7.</b>	<b>Proposed investment on capacity building of the farmers/FPOs with respect to Good Agricultural Practices, IoT, Crop/Farm Management Solutions, Digital Innovations etc.</b>	
	More than 25% investment of the eligible project cost	10
	Between 10 – 25% investment of the eligible project cost	5
<b>8.</b>	<b>Leverage investment (equity and term loan) in the eligible project cost</b>	
	More than 2.5 times of the financial assistance sought	15
	More than 2 and <= 2.5 times of the financial assistance sought	10
	More than 1.5 and <= 2 times of the financial assistance sought	5
<b>9.</b>	<b>Special strength</b>	
	Dovetailing with other schemes of Central/State governments (Approval letter from relevant department of Central/State Government for availing financial assistance is to be submitted) <sup>12</sup>	2.5
	Applicant has obtained final term loan sanction from scheduled commercial banks/RBI approved Financial Institutions (FIs).	2.5
<b>Total Score</b>		<b>100</b>

\*In case a new entity is proposed to be established as Implementing Agency, the following is applicable:

- a. Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.
- b. Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.
- c. The turnover, Debt Equity ratio and net current assets of the lead promoter shall be considered.

\*\*FPOs/FPCs will have 50% relaxation with respect to turnover criteria and years of experience.

**Notes:**

- a. Source of Data for number of farmers/area in the cluster should be as per the UT Govt./State Government/Government of India/Cluster Gap Assessment Report
- b. All financial documents submitted by the applicant entity should be duly certified by the Statutory Auditor.
- c. The MoUs/Agreement shall be verified by the Agriculture/Horticulture/Fisheries/Production Department.

Minimum qualifying marks is 60 out of 100.

**Criteria for Evaluation by Approval Committee (AC)**

Sl. No.	Criteria	Max. Score
1.	IA presentation	50
	<b>Total Score</b>	<b>50</b>

**Criteria for Technical Evaluation of Call for Proposals by the EC for Post-Harvest Management and Value Addition Vertical**

Sl. No.	Criteria	Max. Score
<b>Applicant's profile (50 marks)</b>		
<b>1.</b>	<b>Cumulative net-worth<sup>8</sup> of applicant entity*</b>	
	Net-worth more than 4 times of the proposed equity contribution	15
	Net-worth more than 3 times but less than 4 times of the proposed equity contribution	10
	Net-worth more than 2 times but less than 3 times of the proposed equity contribution	5
<b>2.</b>	<b>Average turnover of applicant entity in the last three years in horticulture sector**</b>	
	Mega cluster: $\geq$ Rs. 50 crore Midi cluster: $\geq$ Rs. 25 crore Mini cluster: $\geq$ Rs. 10 crore	15
	Mega Cluster: Rs. 25 Cr < Rs.50 crore Midi Cluster: Rs. 10 Cr < Rs. 25 crore Mini Cluster: Rs. 5 Cr < Rs. 10 crore	10

	Mega Cluster: Rs. 10 Cr < Rs. 25 crore Midi Cluster: Rs. 5 Cr < Rs.10 crore Mini Cluster: Rs. 1 Cr < Rs. 5 crore	5
<b>3.</b>	<b>Net current assets of the applicant entity</b>	
	More than 50% of the proposed equity contribution	10
	Between >30% – 50% of the proposed equity contribution	5
	Between 10% - 30% of the proposed equity contribution	3
<b>4.</b>	<b>Debt Equity Ratio of the applicant entity</b>	
	Ratio less than 2	10
	Ratio between 2 – 3	5
	Ratio more than 3	3
<b>Project Profile (50 marks)</b>		
<b>5.</b>	<b>A. Possession of appropriate land<sup>13</sup> in line with the project requirement/DPR</b>	
	Land in possession as owner or as registered lease for a period of minimum 15 years	10
	Land identified with lease agreement or agreement to sale	5
	<b>B. Possessed land has approval for industrial use</b>	5
<b>6.</b>	<b>Suitability of project location(s)<sup>14</sup> and its connectivity with road, railways etc</b>	
	If land is in close proximity to State/National Highway/Freight Corridors/Golden Quadrilateral/Sea Port/Railway Yard/ICD Marks may be awarded as follows: a. Within 2 Kms - 5 marks b. Between 2 to 5 Kms - 3 marks c. Between 5 to 10 Kms - 2 marks	5
<b>7.</b>	<b>MOUs/Agreement<sup>19</sup> linkages with farmers/FPOs in target cluster area</b>	
	Covering more than 25% of farmers	10
	Covering 15%-25% of farmers	5
	Covering 10%-15% of farmers	3
<b>8.</b>	<b>Leverage investment (equity and term loan) in the eligible project cost</b>	
	More than 2.5 times of the financial assistance sought	15
	More than 2 and <= 2.5 times of the financial assistance sought	10
	More than 1.5 and <= 2 times of the financial assistance sought	5
<b>9.</b>	<b>Special strength</b>	
	Dovetailing with other schemes of Central/State governments (Approval letter from relevant department of Central/State Government for availing financial assistance is to be submitted) <sup>12</sup>	2.5
	Applicant has obtained final term loan sanction from scheduled commercial banks/RBI approved Financial Institutions (FIs).	2.5
	<b>Total Score</b>	<b>100</b>

\*In case a new entity is proposed to be established as Implementing Agency, the following is applicable:

- a) Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.
- b) Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.
- c) The turnover, Debt Equity ratio and net current assets of the lead promoter shall be considered.

\*\*FPOs/FPCs will have 50% relaxation with respect to turnover criteria and years of experience.

**Notes:**

- a) Source of Data for number of farmers/area in the cluster should be as per the UT Govt./State Government/Government of India/Cluster Gap Assessment Report
- b) All financial documents submitted by the applicant entity should be duly certified by the Statutory Auditor.
- c) The MoUs/Agreement shall be verified by the Agriculture/Horticulture/Fisheries/Production Department.

Minimum qualifying marks is 60 out of 100.

**Criteria for Evaluation by Approval Committee (AC)**

Sl. No.	Criteria	Max. Score
1.	IA presentation	50
	<b>Total Score</b>	<b>50</b>

**Criteria for Technical Evaluation of Call for Proposals by the EC for Logistics, Marketing and Branding Vertical**

Sl. No.	Criteria	Max. Score
<b>Applicant's profile (50 marks)</b>		
1.	<b>Cumulative net-worth<sup>8</sup> of applicant entity*</b>	
	Net-worth more than 4 times of the proposed equity contribution	10



	Net-worth more than 3 times but less than 4 times of the proposed equity contribution	5
	Net-worth more than 2 times but less than 3 times of the proposed equity contribution	3
<b>2.</b>	<b>Average turnover of applicant entity in the last three years in horticulture sector**</b>	
	Mega cluster: $\geq$ Rs. 5 Crore Midi cluster: $\geq$ Rs.25 Crore Mini cluster: $\geq$ Rs. 10 Crore	10
	Mega Cluster: Rs. 25 Cr < Rs.50 Crore Midi Cluster: Rs. 10 Cr < Rs. 25 Crore Mini Cluster: Rs. 5 Cr < Rs. 10 Crore	5
	Mega Cluster: Rs. 10 Cr < Rs. 25 Crore Midi Cluster: Rs. 5 Cr < Rs.1 Crore Mini Cluster: Rs. 1 Cr < Rs. 5 Crore	3
<b>3.</b>	<b>Net current assets of the applicant entity</b>	
	More than 50% of the proposed equity contribution	10
	Between $>30\%$ – $50\%$ of the proposed equity contribution	5
	Between $10\%$ - $30\%$ of the proposed equity contribution	3
<b>4.</b>	<b>Debt Equity Ratio of the applicant entity</b>	
	Ratio less than 2	10
	Ratio between 2 – 3	5
	Ratio more than 3	3
<b>5.</b>	<b>Possession of existing brand/trademark name in the horticulture sector</b>	
	Registration certificate of brand for more than 5 years from the date of application	5
	Registration certificate of brand for more than 2 years from the date of application	3
<b>6.</b>	<b>Export Linkages/Trade Experience in number of countries<sup>15</sup></b>	
	1 mark per country (Max. 5 marks)	5
<b>Project Profile (50 marks)</b>		
<b>7.</b>	<b>MOUs/Agreement<sup>16</sup> linkages with farmers/FPOs in target cluster area</b>	
	Covering more than 25% of farmers	20
	Covering 15%-25% of farmers	15
	Covering 10%-15% of farmers	10
<b>8.</b>	<b>Leverage investment (equity and term loan) in the eligible project cost</b>	
	More than 2.5 times of the financial assistance sought	20
	More than 2 and $\leq$ 2.5 times of the financial assistance sought	10
	More than 1.5 and $\leq$ 2 times of the financial assistance sought	5
<b>9.</b>	<b>Special strength</b>	

	Dovetailing with other schemes of Central/State governments (Approval letter from relevant department of Central/State Government for availing financial assistance is to be submitted)	5
	Applicant has obtained final term loan sanction from scheduled commercial banks/RBI approved Financial Institutions (FIs).	5
	<b>Total Score</b>	<b>100</b>

\*In case a new entity is proposed to be established as Implementing Agency, the following is applicable:

- Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.
- Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.
- The turnover, Debt Equity ratio and net current assets of the lead promoter shall be considered.

**\*\*FPOs/FPCs will have 50% relaxation with respect to turnover criteria and years of experience.**

**Notes:**

- Source of Data for number of farmers/area in the cluster should be as per the UT Govt/State Government/Government of India/Cluster Gap Assessment Report
- All financial documents submitted by the applicant entity should be duly certified by the Statutory Auditor.
- The MoUs/Agreement shall be verified by the Agriculture/Horticulture/Fisheries/Production Department.

*Minimum qualifying marks is 60 out of 100.*

**Criteria for Evaluation by Approval Committee (AC)**

Sl. No.	Criteria	Max. Score
1.	IA presentation	50
	<b>Total Score</b>	<b>50</b>

**b) Criteria for Technical Evaluation of Call for Proposals by the EC for Integrated Project**

Sl. No.	Criteria	Max. Score
<b>Applicant's profile (50 marks)</b>		
<b>1.</b>	<b>Cumulative net-worth<sup>8</sup> of applicant entity*</b>	
	Net-worth more than 4 times of the proposed equity contribution	15
	Net-worth more than 3 times but less than 4 times of the proposed equity contribution	10
	Net-worth more than 2 times but less than 3 times of the proposed equity contribution	5
<b>2.</b>	<b>Average turnover of applicant entity in the last three years in agri/horti sector**</b>	
	Mega cluster: $\geq$ Rs. 200 Crore Midi cluster: $\geq$ Rs. 100 Crore Mini cluster: $\geq$ Rs. 50 Crore	15
	Mega Cluster: Rs. 100 Cr < Rs. 200 Crore Midi Cluster: Rs. 50 Cr < Rs. 100 Crore Mini Cluster: Rs. 25 Cr < Rs. 50 Crore	10
	Mega Cluster: Rs. 50 Cr < Rs. 100 Crore Midi Cluster: Rs. 25 Cr < Rs. 50 Crore Mini Cluster: Rs. 5 Cr < Rs. 25 Crore	5
<b>3.</b>	<b>Net current assets of the applicant entity</b>	
	More than 50% of the proposed equity contribution	7.5
	Between >30% – 50% of the proposed equity contribution	3
	Between 10% - 30% of the proposed equity contribution	1
<b>4.</b>	<b>Debt Equity Ratio of the applicant entity</b>	
	Ratio less than 2	7.5
	Ratio between 2 – 3	3
	Ratio more than 3	1
<b>5.</b>	<b>Export Linkages/Trade Experience in number of countries<sup>17</sup></b>	
	1 mark per country (Max. 5 marks)	5
<b>Project Profile (50 marks)</b>		
	<b>A. Possession of appropriate land<sup>18</sup> in line with the project requirements/DPR</b>	
	Land in possession as owner or as registered lease for a period of minimum 15 years	5
	Land identified with lease agreement or agreement to sale	2.5
	<b>B. Possessed land has approval for industrial use</b>	5

7.	<b>MOUs/Agreement<sup>19</sup> linkages with farmers/FPOs in target cluster area</b>	
	Covering more than 25% of farmers	10
	Covering 15%-25% of farmers	5
	Covering 10%-15% of farmers	3
8.	<b>Proposed area coverage in the target cluster</b>	
	Mega cluster: Area coverage > 25% Midi cluster: Area coverage > 30% Mini cluster: Area coverage > 35%	10
	Mega cluster: Area coverage > 15-25% Midi cluster: Area coverage > 20-30% Mini cluster: Area coverage > 25-35%	5
	Mega cluster: Area coverage > 5-15% Midi cluster: Area coverage > 10-20% Mini cluster: Area coverage > 15-25%	3
9.	<b>Leveraging investment (equity and term loan) in the eligible project cost</b>	
	More than 2.5 times of the financial assistance sought	15
	More than 2 and <= 2.5 times of the financial assistance sought	10
	More than 1.5 and <= 2 times of the financial assistance sought	5
10.	<b>Special Strength</b>	
	Dovetailing with other schemes of Central Government/State Governments Converged (Approval letter from relevant department of Central/State Government for availing financial assistance is to be submitted)	2.5
	Applicant has obtained final term loan sanction from scheduled commercial banks/RBI approved Financial Institutions (FIs).	2.5
	<b>Total Score</b>	<b>100</b>

\*In case a new entity is proposed to be established as Implementing Agency, the following is applicable:

- a) Net-worth of proposed shareholders shall be considered. Each shareholder should meet minimum net-worth requirement of two times of their proposed equity contribution, as per the latest audited balance sheet or CA certificate, as applicable.
- b) Each shareholder should have a minimum 10% equity contribution and lead promoter identified within the applicant entity should have a minimum equity contribution of 26%. All the shareholders/partners of the new entity shall be

jointly responsible and liable to fulfil all its obligations in respect of the project. The lead promoter cannot be changed during project period.

- c) The turnover, Debt Equity ratio and net current assets of the lead promoter shall be considered.

\*\*FPOs/FPCs will have 50% relaxation with respect to turnover criteria and years of experience.

**Notes:**

- a) Source of Data for number of farmers/area in the cluster should be as per the UT Govt/State Government/Government of India/Cluster Gap Assessment Report
- b) All financial documents submitted by the applicant entity should be duly certified by the Statutory Auditor.
- c) The MoUs/Agreement shall be verified by the Agriculture/ Horticulture/ Fisheries/ Production Department.

*Minimum qualifying marks is 60 out of 100.*

**Criteria for Evaluation by Approval Committee (AC)**

Sl. No.	Criteria	Max. Score
1.	IA presentation	50
	<b>Total Score</b>	<b>50</b>

- <sup>1</sup> Refer Annexure – III for detailed definition and documents in support of net-worth.
- <sup>2</sup> In case of in-principle sanction letter, the final term loan sanction letter should be submitted within 2 months from the date of issue of final approval letter.
- <sup>3</sup> The applicant entity shall provide State Government sanction order as per the budget outlay in this respect.
- <sup>4</sup> Detailed Project Report shall consist of technical, commercial, financial, operation and management aspect of the project for the proposed vertical in the cluster.
- <sup>5</sup> Mission for Integrated Development of Horticulture.
- <sup>6</sup> Ministry of Food Processing Industries.
- <sup>7</sup> Agriculture and Processed Food Products Export Development Authority.
- <sup>8</sup> Net-worth to be ascertained as per the latest audited balance sheet/CA certificate.
- <sup>9</sup> Net current assets in the aggregate amount of all current assets, minus the aggregate amount of all current liabilities, to be ascertained as per the latest audited balance sheet.
- <sup>10</sup> The debt-to-equity (D/E) ratio is calculated by dividing entity’s total liabilities by its total shareholder equity, to be ascertained as per the latest audited balance sheet.
- <sup>11</sup> MoUs/Agreements verified by the line Departments to be submitted as supporting document.

- <sup>12</sup> The project approved under other Central/State Government Scheme should be within the cluster.
- <sup>13</sup> English/Hindi version of land documents and approvals to be submitted as supporting document.
- <sup>14</sup> Letter from tehsildar/local revenue department and site coordinates to be submitted as supporting documents.
- <sup>15</sup> Export license/Invoices/Agreements to be submitted as supporting document.
- <sup>16</sup> MoUs/Agreements verified by the Line Department to be submitted as supporting.
- <sup>17</sup> Export license/Invoices/Agreements to be submitted as supporting documents.
- <sup>18</sup> English/Hindi version of land documents and approvals to be submitted as supporting document.
- <sup>19</sup> MoUs/Agreements verified by the line Departments to be submitted as supporting document.

## **23. DAIRY DEVELOPMENT IN J&K:**

### **I) Rationale:**

The AI coverage is as less as 30% and presently, only 3.32 Lakh cows are covered under AI. The two semen stations produce only 9 lakh semen straws annually against a requirement of 19 lakh straws, if we target AI coverage in 70% females. The PT bulls required for semen production are imported from outside UT. There is no PT program for bull production in UT of J&K. Availability of quality murrh bulls for AI coverage is also an issue. Around 20,000 dairy animals of unknown genetics are imported from neighbouring states with flight of capital of Rs. 200 cr. There is 41% deficiency in fodder on dry matter basis and only 5% of the net sown area is under fodder cultivation. The green fodder availability is for a lesser period due to prolonged winters. The dairy farmers rely on traditional/ unscientific feeding practices resulting less milk productivity. Only 2.8% of milk produced enters organized processing sector resulting less remunerative prices for milk. There is no premium for farmers to produce clean and hygienic milk as there is preponderance of middleman ship in the sector who exploit farmers. Due to weak milk collection and chilling infrastructure in the milk shed areas, the milk processing capacity of around 1 Lakh litres is under-utilized in the private sector. Since less milk flows through processing sector, value addition of milk in organized is proportionately very less thus prospectus of remunerative prices to dairy farmers are further stifled. Farmyard manure is an untapped commodity and its huge contribution to J&K's economy in terms of increasing the crop production and productivity is not recorded.

### **II) Objectives**

- Productivity enhancement of dairy cows to increase milk production.
- Establishment of milk collection and chilling infrastructure in existing milk shed areas.
- To promote collectivization of milk and milk products for better price remunerations.
- Upscale value addition of milk and milk products to encourage exports.
- To ensure safe and hygienic milk reaches to consumers.
- To attract private investment in dairy sector and generate employment.

### **III) Component wise Guidelines:**

#### **a) Strengthening of two semen stations:**

There is a requirement for strengthening of Semen Stations as per the CMU recommendations to produce quality disease free semen straws and to cater the requirement of 19.5 lakh semen straws annually.

Following interventions are required in the two semen Stations:

- Re-Structuring the semen Labs as per the CMU recommendations.
- Installation of latest equipment for processing capacity enhancement including traceability of Semen Straws.
- Induction of additional 20 HGM bulls in each Semen Station.
- Strengthening the biosecurity of Semen Station as per MSP.
- Strengthening of Quality Control Labs.

The Development of the Semen Stations shall be done in collaboration with NDDDB as GoI has planned a uniform design for all semen stations. DPR for the project is framed in collaboration with NDDDB. for each Semen Station and the project will be funded under CSS-RGM as per the guidelines of the scheme.

The High genetic merit Jersey & HF bulls for the semen stations shall be imported from outside country as per the latest guidelines issued by Ministry of Fisheries, Animal Husbandry & Dairying, GoI, for Export and Import of Bovine Germplasm.

Only Progeny tested HGM breeding bulls shall be procured from other States of the Country which qualify breed wise requirements stipulated in minimum Standards protocol for bovine semen production.

#### **b) Availability of Sexed semen:**

Animal Husbandry Department J&K will undertake MOU with Genus ABS India or Sexing Technologies India for production of sexed semen straws at two Semen Stations using bulls stationed at the semen stations for production of sexed semen or sex sorted semen straws. Sexed semen straws will be available farmers at subsidized rates as per the guidelines of Breed Improvement Program with Sexed Semen issued by GoI. The savings of the negotiated cost which will be arrived at MoU with either of Sexing Semen companies shall be transferred to the farmers and continuous supply of sexed semen straws shall be ensured. Each semen station will produce around 4.5 lakh doses of sexed semen. By using 50%



sexed semen and 50% conventional semen 5.33 lakh elite cows/ buffaloes shall be produced annually against 1.66 lakh at present. The technical program shall be implemented as per the guidelines of RGM and in collaboration with National Dairy Development Board Anand, Gujrat.

**c) Deployment of 800 Private AI workers:**

- i) There is a network of 1389 AI centers in UT of J&K. The AI coverage can be increased by extending the AI service at farmers door step and it is proposed to deploy 800 private AI workers in all 10 districts of Jammu Division and district Kupwara of Kashmir Division. These private AI centres shall be established in addition to funds provided by GoI under RGM scheme for establishment of MAITRI's. These AI workers will be provided the AI equipment @ ₹ 0.50 lakh per AI worker and the training charges per AI worker for a period of 3 months in Accredited AI Training Institute shall be ₹ 0.30 lakh. The scheme shall be implemented by Livestock Development Boards of respective Divisions. The A HELP workers interested in AI work shall be provided AI training as per the guidelines of A HELP program and AI logistics shall be provided under UT capex. Guidelines of RGM for establishment of MAITRIs and guidelines of A HELP shall be followed for establishing the AI workers.
- ii) Each AI worker shall be provided ₹ 100 per AI, ₹ 100 per conception and ₹ 100 per birth recorded as an incentive under UT capex and incentive as may be admissible under RGM when the program will be shifted under NAIP. It is supposed that these 800 AI workers will conduct 6 lakh AIs annually covering 2.40 lakh breedable bovines. The AI workers will be provided the incentive for 3 years under UT capex and shall be shifted to Nationwide AI Program component of CSS RGM for incentive and other logistics. Capacity building/ refresher training of existing AI workers shall be conducted @₹ 1000/ AI worker regarding best AI practice to improve conception rate. The semen straws will be provided free of cost @ ₹ 25/ straw under UT Capex.
- iii) The AI workers shall be deployed to conduct AI's in uncovered areas from year 2 to conduct 6 lakh AI's annually in addition to 13 lakh AI's to be conducted by existing AI workers from year 1. Year-wise AI coverage: Y1: 40% Y2: 62%Y3: 70%Y4: 70% Y5: 70%. 96000 litres of additional liquid nitrogen is required to conduct these AI's which will be produced by newly installed LN2 Plants. The

target of average lactation yield which will be achieved after 5 years is 4300 litres. The milk production is targeted to increase 7.57% annually from current 2594 Th MT to 4468 Th MT.

**d) Breed Multiplication farm:**

J&K imports 20000 dairy animals annually leading to flight of capital of around ₹ 200.00 Cr. It is proposed that 30 cow/buffalo breed multiplication farms of 200 cow capacity or 120 farms of 50 cow capacity shall be established in private sector over a period of 5 years under CSS-RGM which will produce 5400 female calves annually after 5 years for cattle induction. The program shall be implemented as per the latest guidelines of Central Sector Scheme Rashtriya Gokul Mission.

**e) Establishment of 400 satellite heifer rearing units:**

Interested farmers shall be provided incentive of ₹ 10.00 lakh for 20 female calf rearing unit (₹ 0.50 lakh per female calf including infrastructure) for rearing these calves upto adult hood and selling them as dairy cows. The beneficiaries can buy 20 elite female calves of the age group 3 months and above and shall rear them up to 3 years or till pregnancy or first calving. All the female calves shall be procured locally within the UT of J&K from dairy farmers, Cattle Breeding Stations etc. The adult cows can be sold in advanced pregnancy or after parturition. These rearing units shall upload the details of saleable stock on e- Pashu Haat.

**Eligibility:**

Any individual, group of individuals, cooperatives, FPOs are eligible for the scheme provided they have sufficient land available for creation of infrastructure and rearing of calves.

It is presumed that with establishment of these units 8000 dairy animals shall be available annually after a period of 5 years. The cattle dealers of J&K will be replaced with cattle breeders.

**f) Establishment of Multiple Ovulation embryo transfer using IVF technology at MLRI Manasbal:**

It is proposed that 100 pure bred elite Jersey cows with a milk yield of 5000 litres and above shall be imported to be inducted at MLRI Manasbal and these animals shall be used as donor animals for production of embryos. The animals shall be imported at the

rate of ₹ 10.00 lakh per animal. The MOET-IVF Lab shall be established at a cost of ₹ 10.00 Cr. The embryos produced shall be implanted in private organised farms and 3000 elite calves will be born out of these embryos. The dams genetic potential can be exploited with this technology. The male calves born shall be put to progeny testing for HGM bull production program for induction of HGM bulls in the semen station.

Minimum Standard Protocol issued by GoI shall be followed for production of embryos and management of donor animals.

**g) Establishment of a Murrah Buffalo Breeding Farm at Poni Check:**

The total buffalo population in J&K is 6.90 lakh which include the 3.96 lakh adult female buffaloes. The buffaloes in J&K are mostly low yielding with average lactation yield of 1000 to 1200 litres. The average milk yield of Murrah buffalo is 2500 to 3000 litres. It is proposed to establish a Murrah Buffalo Breeding farm at Ponicheck Rajouri with induction of 200 elite Murrah buffaloes with an average milk yield of 2500 to 3000 litres. This breeding farms will serve as a door step facility for buffalo breeders to replace low productive buffaloes with elite dairy buffaloes. The farms will also produce buffalo bulls for induction in semen stations and female stock for induction in private sector. The milk from the farm will be sold to JKMPCL.

**h) Implementation of progeny testing program for HGM bull production- Milk recording using INAPH:**

The main objective of progeny testing programme is “Production of High Genetic Merit bulls” which in turn are used in semen stations to enhance the future milk production. Productivity of dairy animals is influenced by their genotype. Hence, the productivity will be enhanced by increasing genetic potential. The selection of male always assumes greater significance in any genetic improvement programme as their contribution to the next generation is significantly higher than females.

A bovine female can produce only one progeny in a year, whereas a bovine male can breed around 100-150 females during the same period by Natural service and semen from a single bull can be used to breed thousands of females in a year by Artificial Insemination. Therefore, the importance of accurately selecting male becomes more critical. The Absence of systematic selection of males for artificial insemination is the main reason for low productivity of dairy animals in the country. Hence, Progeny Testing Programme is implementing to achieve a study genetic progress in the buffalo or cattle population for milk, fat and protein yield and breed characters. Progeny testing programme will be taken

up in a compact area, where a sizable number of breedable animals of the identified breed are available and a reasonable size of AI infrastructure exists and also aptitude and awareness of the farmers and AI technicians are also taken into consideration.

In PTP, the bull calves born out of ETT-IVF program and from elite buffaloes of the buffalo breeding farm Jammu shall be put to test after maturity. A minimum of 2000 test doses per bull shall be distributed in identified villages so as to conduct a minimum of 2000 AI and 3000 doses for each bull are preserved till progeny test results of the bulls put to test are available. All the female animals inseminated with test dose of semen are identified with ear tags. All daughters born shall be identified with ear tags and followed up for body growth. Parentage testing (DNA test) shall be carried out in 10% of the daughters randomly. When these daughters reach serviceable age they are inseminated with Semen from test bulls of future batches and later followed up for pregnancy and calving. All data related to AI, pregnancy, calving are captured online in a software called INAPH (Information Network for Animal Productivity and Health).

Milk production as well as milk components like fat, milk proteins, lactose etc., of all the daughters would be analysed and recorded through INAPH once in a month for complete lactation. Breeding values of bulls put to test and milk recorded daughters would be estimated. Semen doses of top ranked bulls (minimum five) shall be used for nominated mating of elite daughters to produce next generation of superior bull calves. Bull Calves produced through nominated mating shall be procured after preliminary selection, disease screening and parentage testing. Procured bull calves will be kept at pre-quarantine and quarantine stations and later distributed to semen station for producing thousands of doses of quality semen during its lifetime.

1200 A HELP workers will be trained @ ₹ 5000 each and will be provided a tablet @ ₹10000 per A HELP worker. They shall be deployed for milk recording and recording of other parameters on milk recording module of INAPH. Each A HELP worker shall be provided ₹ 50 per recording per cow and in a year she has to record 13 transactions per dairy animal. The data shall be analysed and 1200 animal owners with best milk yield will be selected for productivity enhancement incentive annually. Maximum two dairy cows shall be put to recording per farmer. 400 Farmers with best productive cows shall be provided an incentive of ₹ 5000/-each after completion of recording, accordingly, 400 farmers with 2<sup>nd</sup> best milk yielding cows shall be provided ₹ 3000 each and 400 farmers with 3<sup>rd</sup> best milk yielding cows shall be provided an incentive of ₹ 2000 each. This will boost confidence among farmers to rear best productive cows. The 300 male calves

produced from best productive cows with the use semen from best HGM bulls shall be selected for progeny testing program.

**i) Ration Balancing Program:**

Farmers feed their animals based on their traditional knowledge and information passed through generations with crop residues, locally available one or two feed ingredients like brans, oil-cakes, chunnies, grains etc. and seasonally available green fodders. They rarely offer mineral mixture to their animals or in a very less quantity of 25g to 50g per day. In most of the cases, the quantity of feed/fodder offered to animals is either more or less than the requirements. This leads to an imbalance of protein, energy and minerals in their ration. Animals on such imbalanced ration produce milk sub-optimally, cost of milk production is higher and it affects the health and fertility of animals. Therefore, it is necessary to educate farmers on feeding of balanced ration.

NDDDB, has developed a software that can be used on desktops, laptops, netbooks, tablets as well as phones. With the help of this software balanced ration is formulated considering the animal's profile, i.e. cattle or buffalo, age, milk production, milk fat, and feeding regime etc. and milk producers are advised to adjust the quantity of locally available feed ingredients offered to their animals along with area specific mineral mixture. In collaboration with NDDDB we will create digital area wise or district wise local feed fodder libraries. The nutrient profile of all locally available feeds shall be analysed and recorded on the INAPH portal.

It is proposed that 600 A-HELP (Accredited Agent for Health and Extension of Livestock Production) workers shall be trained as local resource persons for the program. They shall also be provided the Tablets for digitally formulating ration and a balance for weighing ingredients. Ration balancing of 6 lakh elite cows and buffaloes shall be done twice a year. These workers shall be paid ₹ 50/ration balancing. It has been observed that there is an increase of 5% in milk productivity if balanced ration is fed to dairy animals and feed input cost is reduced by 10%.

If current productivity scenario is taken into consideration, there will be an increase of 72.5 T MT of milk which amounts to ₹ 253 Cr per year and on an average ₹ 30 will be saved per animal per day in terms of feed inputs which amount to ₹ 657 Cr. per year.

**j) Chilling/Processing capacity enhancement:**

There is a chilling capacity of 1.80 LLPD established by JKMPCL and around 0.20 LLPD by private cooperatives/FPO's. The milk collection/ chilling capacity shall be enhanced by 2.5 lakh litres and over next 5 years more than 8.5 LLPD (5 LLPD by JKMPCL & 3.5 LLPD by SHG/FPO/Private companies) will be marketed through organized processing sector. 7% of total milk produced shall be processed by milk companies instead of current 2.8%.

It is proposed that already 500 existing/ new milk SHG's/ FPO's shall be established in different milk shed areas of J&K. The women FPO's or SHGs identified or aggregated by JKRLM / NDDDB shall be prioritized for benefits under the scheme. The dairy farmers who intend to form a milk FPO and can accumulate more than 300 litres of milk per day can also receive benefits. The beneficiaries shall register their FPOs/SHGs as per the norms in vogue. No incentive shall be provided for procuring or leasing suitable land for installation of BMC. The FPO's /SHGs can rent an accommodation for installation of AMCU and no incentive shall be provided in this regard.

The FPO's of SHGs must have more than 100 pourer members. The 500 FPO's/SHGs shall be provided milk collection infrastructure (AMCU's and Milk Cans) which will be linked to Bulk Milk Coolers 2.5 lakh LLPD capacity and these BMC units shall be linked to Milk Companies. Each collection unit will be provided a working capital of ₹ 2.00 lakh, AMCU + Milk Cans ₹ 4.00 lakh each, and BMC- 5000 LPD ₹ 15 lakh each along with civil work for installation of BMC.

**5. Establishment of 100 milk Value Addition Start-ups with linked branding/ Marketing:**

Milk fetches better prices when it is converted into products like ghee, cheese, dahi, khoa etc. It is proposed that 100 milk start-ups shall be incentivised and encouraged to process milk products along with packaging, branding and shall be facilitated for marketing the product. The beneficiaries for this scheme shall be SHG's or FPO's. Special focus shall be given for processing, branding and marketing of Kaladi cheese and Khoa in National and international markets. FPO's/SHGs for Kaladi Cheese will be established in Udhampur, Rajouri, Poonch, and Jammu. All the Kaladi processing start-ups shall be linked to National Digital Livestock Mission at first instance to ensure traceability and later on start-ups of other products shall be linked with National Digital Livestock Mission and Kaladi FPO's shall be established in other districts also. The FPO's/SHG's will install all required machinery for establishing the milk product processing plant. No incentive shall be

provided to purchase or lease land, purchase of old machinery or vehicle for personal use. All these 100 start-ups shall be provided incentive of ₹ 20.00 lakh each for setting up processing unit, branding and marketing the dairy product, ₹ 3.00 lakh incentive for purchasing a marketing vehicle and ₹ 2.00 lakh as working capital. Additional 18 Th MT of milk shall be brought under organized processing sector with this intervention.

## **24. REORIENTING PRIORITIES: SELF SUFFICIENCY IN MUTTON PRODUCTION IN J&K**

### **Guideline for import of animals and their quarantine at facilities at J&K**

#### **A. Pre- requirement for Import**

- i. The license from the Directorate General of Foreign Trade (DGFT), Ministry of Commerce, Government of India is required in case of import of Live Animals (not covered under free category) along with a health requirement as issued by the Department of Animal Husbandry and Dairying.
- ii. The terms and conditions indicated in the licence related to health requirements should confirm to the latest Indian health requirements.
- iii. All the consignments should be accompanied with a Veterinary Certificate from the Official Veterinarian of Exporting Country according to the conditions mentioned in the Indian health requirement attached with the licence, as the case may be.

#### **B. Arrival at Delhi Airport**

- i. All the animals must enter directly into Delhi Airport from the exporting country.
- ii. The imported animals shall be subjected to the clinical examination.
- iii. The relevant documents shall be collected and inspected by the Quarantine Officer, Animal Quarantine and Certification Services (AQCS), Delhi.
- iv. Transport of animals from Port to Quarantine facility of the State
  - v. All animals shall be transported in a suitable closed animal carrier as per the standards and requirements for transporting sheep with the following provisions;
  - vi. Carrier shall be disinfected before loading of animals.
  - vii. Carrier shall be free from any vector and shall be covered by the mosquito net.
  - viii. Carrier shall be adequately loaded with quality feed and potable water for complete journey up to destination. In any case, no unloading of any animal shall be allowed during the entire journey.
  - ix. The floor and sides of carrier shall be covered with an impermeable sheet to prevent leakage of any excreta during the entire journey.
  - x. The suitable arrangement shall be made in the carrier itself to keep the dead animal, if any during the period of journey.
  - xi. After reaching the destination, the entire excreta and dead animal, if any (after post-mortem) will be disposed off with in premises of quarantine facility by deep burying in a pit along with suitable disinfectant e.g. active lime.
  - xii. Carrier shall be thoroughly disinfected after unloading of animals.

#### **C. Quarantine facility**

- i. The quarantine facility shall be inspected and approved if it fulfils all the requirements. For the purpose, the State Government shall submit dossier of their Quarantine facility.
- ii. Quarantine facility shall be a disease free zone.
- iii. All animal sheds and feed stores shall be cleaned and disinfected with suitable disinfectants along with fumigation at least a week before arrival of animals. A separate shed will be made in the quarantine facility to keep sick animals.
- iv. Quarantine facility shall be having facilities for examination and sample collections.
- v. Quarantine facility shall be having adequate quality feed and potable water.
- vi. Quarantine facility shall be free from vector borne disease. The provision shall be made to control fly vectors and other vectors like ticks and leaches.
- vii. Quarantine facility shall have provisions to prevent ingress of any disease.



- viii. Quarantine facility shall not hold any live animal 21 days prior to the arrival of imported animals.
- ix. The area in the vicinity of quarantine facility shall be under surveillance for infectious diseases.
- x. Quarantine facility shall have a separate, demarcated provision to dispose all animal excreta, bedding, etc. within its premises.
- xi. Quarantine facility shall fulfil all the Bio-security provisions like Compound, entry/exit gate, Standard Operating Protocols (SOPs) for movement and conduct of labour. The proper hygienic measurements shall be taken by the labour before entering into the quarantine facility. Once exit from the quarantine facility, the re-entry shall be allowed after taking proper hygienic measures.
- xii. A State officer shall be nominated as the liaison officer to co-ordinate with the Quarantine Officer, AQCS, New Delhi.

#### **D. Activities to be undertaken during quarantine of imported animals**

- i. The nominated State officer shall maintain proper hygiene condition during the period of quarantine. The animal's sheds shall be cleaned and disinfected daily.
- ii. The garbage shall be disposed as per the laid down procedures through burying/incineration.
- iii. The nominated State officer shall maintain health record of the animal(s).
- iv. The nominated State officer shall collect the necessary samples and shall arrange for testing in the specified laboratory. For the purpose, the State shall make a Standard Operating Protocols (SOPs).
- v. Suitable samples shall be drawn from the imported animals between 3-5 days after arrival for testing of Anthrax, Border disease, Brucella ovis and Blue tongue.
- vi. The nominated State officer shall carry out haematological, urine, faecal examinations as and when required and take appropriate follow-up action.
- vii. The nominated State officer shall examine the animals for infection of ecto-parasite and shall take appropriate follow-up action including disinfection of the premises, in case parasitic infestation is detected.
- viii. In the event of mortality during the quarantine period, the post-mortem shall be conducted in the quarantine facility by the authorized Veterinary officer with all precautions and laid down procedures. If required, the expert services of the specified laboratory/ institution shall be requested and samples shall be collected for confirmation. The same shall be also informed immediately to the Quarantine Officer, AQCS, Delhi. After the post-mortem, the carcass shall be disposed-off by deep burial/ incineration as per the laid down procedures within the quarantine premises.
- ix. The Quarantine Clearance Certificate for imported animals by the Quarantine Officer, AQCS, Delhi shall be subjected to satisfying the quarantine requirements for 30 days and post import test reports.

#### **Guidelines for establishment of breed-based farms**

##### **Objectives**

- i. To develop entrepreneurs in small ruminant sector
- ii. To develop the sustainable business model on sheep-goat
- iii. To incentivize Individuals Entrepreneurs, FPOs, FCOs, SHGs, JLGs, and Section 8 companies for development of integrated rural sheep-goat production system

- iv. Conversion of the small ruminant sector from unorganised sector to organised sector through promotion of entrepreneurship & investment and creation of forward & backward linkages
- v. Spreading awareness about scientific rearing practices, nutrition, disease prevention etc
- vi. Promotion of stall-feeding model of sheep and goat rearing

**Salient Features**

- i. Creation of entrepreneurs through one-time capital subsidy to Individuals/ Self Help Group (SHG)/Farmers Producer organizations (FPO)/Farmers Cooperatives (FCOs)/Joint Liability Groups (JLGs) and Section 8 companies.
- ii. The Entrepreneurs / Eligible Entities can establish sheep and goat breeding unit with minimum 500 females and 25 males. The sheep and goat unit to be established with the High Genetic Variety used for producing mutton, chevon, Goat milk and fine wool quality. The breed of sheep and goat can be selected from the list provided with this guideline or in consultation with the Department.
- iii. Project will provide up to 50% back ended subsidy for the capital cost of the project.
- iv. The Entrepreneurs / Eligible Entities need to arrange the remaining amount through bank loan or from the financial institution or self-financing

**Pattern of Assistance**

50% capital subsidy up to Rs. 50 lakh in two instalments. Subsidy will be the capital subsidy and provided in two equal instalments. First instalment will be released upfront to the scheduled bank to be credited to the Entrepreneur/ Eligible Entities' account after the bank or financial institution releases First Instalment of loan to the beneficiary and its confirmation by the Department. Beneficiaries will be eligible for release of the second instalment after completion of the project and certified so by the Department. In case of the self-financing project, the project needs to be appraised by the bank where the Entrepreneurs/ Eligible Entity have account. The first instalment of 50% subsidy will be provided into the lending bank where the beneficiary has account. The subsidy will be released only when the beneficiary has made expenditure of 25% cost for the project towards infrastructure and has been verified by the Department. Remaining amount of 50% subsidy will be provided completion of the project and verified by Department. The Entrepreneurs / Eligible Entities interested in taking benefit under the entrepreneurship project in self-financing mode, need to provide Bank Guarantee from the scheduled bank valid for three years for the remaining cost of the project beyond the cost of subsidy sought for support. This Bank Guarantee shall be provided in the name of the Department. The original Bank Guarantee is to be kept in the safe custody of Department. No subsidy will be provided for working capital, personal vehicle, purchase of land, cost for rent and lease of land

**Eligible Entities:**

FPOs/FCOs/SHG/JLG/Individuals/ Section 8 companies

Follow up of the project shall be for a period of 3 years after completion with regards to its operation.

### **Guidelines for horizontal expansion of sheep/goat population**

The support by the Department shall be available for the following: -

- i. Establishment of sheep/goat units (50 ewes/does)

The scheme shall be implemented through Sheep Husbandry Department Jammu/Kashmir and monitored by concerned Directors of Sheep Husbandry, J&K.

### **Mode of operation:**

- i. Any individual /group of individuals/self help group/cooperative society/farmers producer organization can avail the benefits of scheme.
- ii. Units may be established in clusters for easy management, breeding cover and impact assessment.
- iii. Efforts will be made to cover 20% SC/ST and 10% women beneficiaries
- iv. Establishment of sheep/goat units on subsidy mode (50 ewes/does)
- v. "Sheep/goat units would mean a unit of minimum fifty sheep/goats". Subsidy is fixed for one unit of fifty sheep/goats. However, if an entrepreneur sets up multiple units of fifty sheep/goats, he will be entitled to subsidy accordingly, in multiples, available for single unit of fifty sheep/goats. To clarify, if a person wants to set up a unit of hundred sheep/goats, he will be entitled for subsidy 2 times of that available for one single unit of fifty sheep/goats.
- vi. All the inducted Animals shall be UID tagged & registered on INAPH/NDLM/Smart Sheep portal. Concerned VAS shall regularly check and update status of these animals on the web portal.
- vii. Breed selection (sheep/goat) may be done as per the requirement of Department & the beneficiary.
- viii. Once the beneficiary has established the unit of animals/shearing unit, 50% of the unit cost as subsidy amount or maximum ceiling, whichever is less, shall be released by the concerned District Sheep Husbandry Officer (DSHO) on production of the invoice and physical verification of the unit by a team constituted by the DSHO concerned.
- ix. Such verification shall be carried out within 15 days of the submission of invoice and establishment of the unit. There will not be delay of more than 30 days in release of subsidy once the beneficiary has submitted the required documentation.
- x. Release of subsidy will be only through DBT.
- xi. The beneficiary can opt for loan facility by depositing 10% marginal money and 50% of the unit cost as total eligible subsidy amount or of maximum ceiling, whichever

- is less, will be released to the bank as back ended subsidy. Bank loan shall have defined lock in period as per RBI guidelines and terms and conditions of different commercial banks.
- xii. All such beneficiaries who intend to avail loan facility shall submit the form in the office of District Sheep Husbandry Officer (DSHO) of concerned district along with supporting documents, if any.
  - xiii. The DSHO shall ascertain eligibility of beneficiary & shall forward the proforma bill of the unit along with copy of application of beneficiary and a letter to Bank. The bank shall follow all RBI guidelines for sanctioning such loan. After receipt of NOC from Bank, DSHO shall process the release of subsidy after verification of supply.
  - xiv. Beneficiary must have sufficient land holding, infrastructure, fodder/grazing and man power resources available, to maintain the unit on organized pattern.
  - xv. Committee of following officers shall select Beneficiaries after ascertaining the eligibility of the beneficiary: District Sheep Husbandry Officer, member from District Administration & concerned VAS
  - xvi. Beneficiary cannot dispose the parent stock for at least two years & shall be exclusively used for propagation of livestock.
  - xvii. A separate flock book shall be maintained for these animals with all necessary recordings. (Animals shall be UID tagged & the status of the unit checked on regular basis by the concerned)
  - xviii. Sheep/goats shall be procured at a breedable age of 1.5-2 years.
  - xix. Additionally, following logistic support shall be provided by the Department to beneficiaries:
    - a. Optimal breeding cover.
    - b. Veterinary health Care.
    - c. Technical guidance at door step.
    - d. Machine sheep shearing.
    - e. Remunerative prices for sale of Elite germplasm produced by such units.
    - f. Veterinary Health care/ Management at alpines (High Land pastures).
  - xx. Supervision and monitoring: For effective control, look-after and proper supervision/ monitoring the beneficiary must install a metallic signboard of minimum dimensions of 3' x 2' outside the unit with full details of the unit.
  - xxi. Director, Sheep Husbandry Department Jammu/Kashmir shall constitute a monitoring committee for impact assessment & for monitoring the implementation of the scheme. They shall also submit the list of beneficiaries with address/phone number and photographs to the Administrative Department and upload the same on official website of the Department.

- xxii. The Director Sheep Husbandry Kashmir/Jammu, if deemed necessary can incorporate additional clauses to streamline the implementation of the scheme. List of beneficiaries with address/phone number, photographs must be uploaded on the official website of the Department.

**Guidelines for AI & ETT in Sheep & Goat: Minimum standard protocol and SoP for Ovine/Caprine Semen production and processing shall be followed.**

**Guidelines for establishment of clusters & abattoirs integrated with mandis**

The support by the Department shall be available for the following: -

- i. Establishment of clusters in shape of FPOs/FPCs/SHG having a common facilitation centre with shearing facilities, health/breeding cover facilities & preliminary processing set up for wool
- ii. Establishment slaughter houses integrated with sheep mandis  
The scheme shall be implemented through Sheep Husbandry Department Jammu/Kashmir and monitored by concerned Directors of Sheep Husbandry, J&K.

**Mode of operation:**

- i) Any individual /group of individuals/self help group/cooperative society/farmers producer organization can avail the benefits of scheme.
- ii) Efforts will be made to cover SC/ST and women beneficiaries
- iii) The FPO shall be eligible for one time incentive of Rs 18 lac per FPO/FPC for registration, establishment of CFC which shall extend following logistic support:
  - a. Optimal breeding cover.
  - b. Veterinary health Care.
  - c. Technical guidance at door step.
  - d. Machine sheep shearing.
  - e. Preliminary wool processing
  - f. Remunerative prices for sale of Elite germplasm produced by such units.
- iv) In case of an abattoir, once the FPO has established the setup, 50% of the unit cost as subsidy amount or maximum ceiling of ₹2.1 Cr per abattoir with details as given in the project with integrated sheep mandis, whichever is less, shall be released on production of the invoice and physical verification of the unit by a team constituted for the purpose.

- v) Such verification shall be carried out within 15 days of the submission of invoice and establishment of the unit. There will not be delay of more than 30 days in release of subsidy once the beneficiary has submitted the required documentation.
- vi) Release of subsidy will be only through DBT.
- vii) The beneficiary can opt for loan facility by depositing 10% marginal money and 50% of the unit cost as total eligible subsidy amount or of maximum ceiling, whichever is less, will be released to the bank as back ended subsidy. Bank loan shall have defined lock in period as per RBI guidelines and terms and conditions of different commercial banks. AHIDF or similar schemes can be availed for term loan along with interest subvention
- viii) All such beneficiaries who intend to avail loan facility shall submit the form online.
- ix) Beneficiary must have sufficient land holding, man power resources available, to maintain the unit on organized pattern.

## **25. ROADMAP FOR POULTRY DEVELOPMENT IN J&K:**

The support in terms of incentives/subsidy will be available for the following:

- x. Establishment of Broiler Parent stock cum Hatchery with in-house Feed manufacturing
- y. Commercial Layer farms with in-house Feed manufacturing
- z. Poultry Feed manufacturing plants
- aa. Mother units with Parent stock, Hatchery and Nursery Rearing for producing chicks for backyard.
- bb. Horti-Poultry/Free range poultry Farms
- cc. R&D for breed development feed formulation as health package

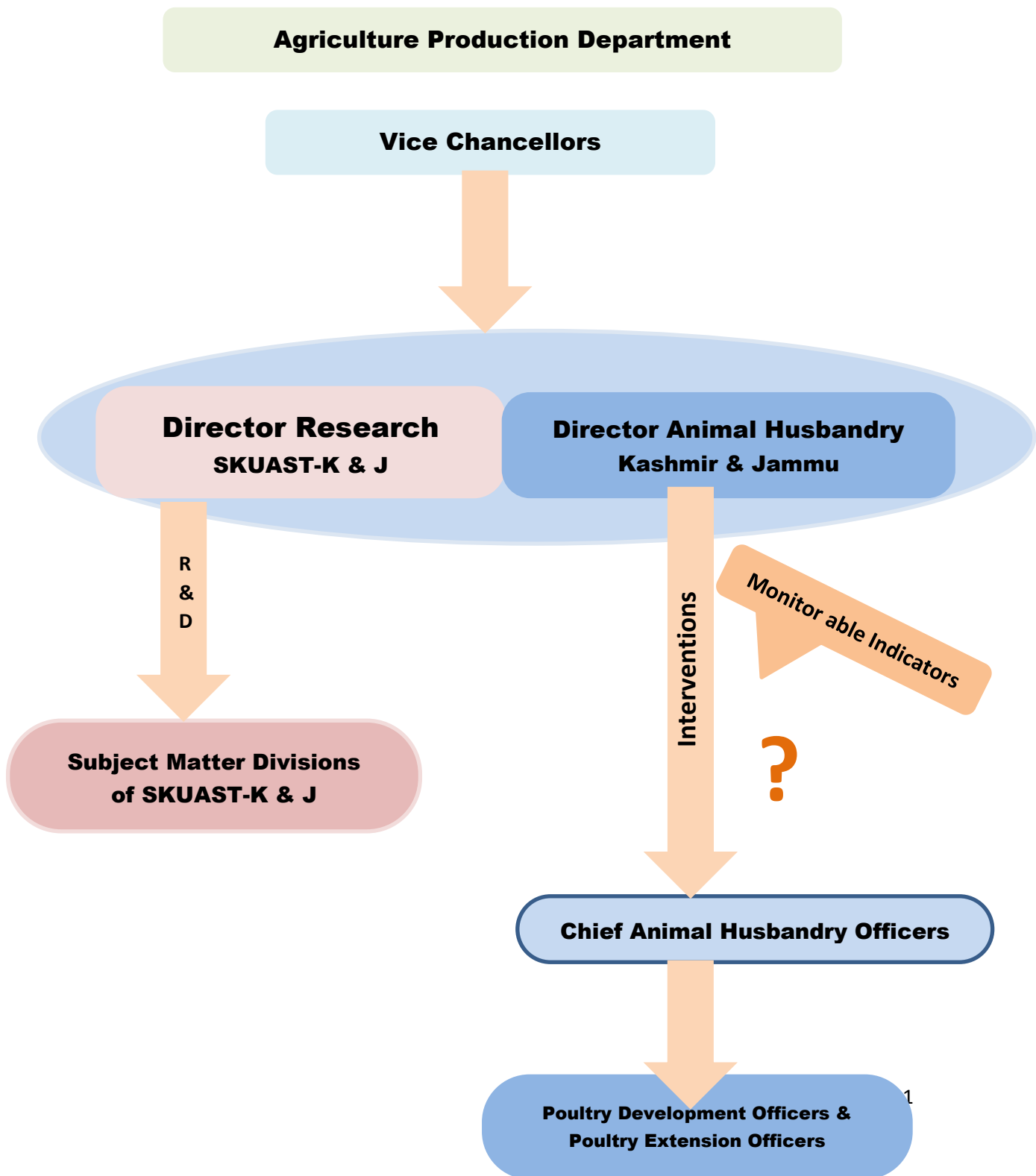
The scheme shall be implemented through Animal Husbandry Department Jammu/Kashmir and monitored by committee constituted by the Administrative Department for the purpose.

- 14. Any individual/group of individuals/Poultry Farm unit holders/SHGs/ Poultry Cooperatives/Farmers Producer Organization can avail the benefits.
- 15. Poultry Farmers availing the benefits shall be registered with Animal Husbandry Department as per the provisions in vogue.
- 16. Efforts will be made to cover 20% SC/ST and 10% women beneficiaries.
- 17. The component wise details of benefits and subsidy available are provided in the DPR.
- 18. The beneficiary should avail insurance facility from any insurance company registered with insurance regulatory and Development Authority of India, however, Animal Husbandry Department shall bear no responsibility for settlement of claims or any dispute with insurance company.
- 19. Interested beneficiaries will submit their application through respective Chief Animal Husbandry Officer. The CAHO after due scrutiny shall submit the case of eligible beneficiaries to the respective Directorate of Animal Husbandry.
- 20. All the required documents and a brief business plan, indicating the site of installation/purpose/supply chain if any/shall be enclosed with application.
- 21. Subsidy/Incentive shall be extended on first come first serve basis subject to availability of funds.
- 22. For establishing the Units the beneficiary shall own the required land on which the farm will be established.
- 23. Release of incentive/subsidy will be only through DBT mode.
- 24. In case beneficiary avails bank loan for establishing a Unit CAHO shall forward the approved estimates along with copy of application to the Bank. The bank shall follow all RBI, guidelines for sanctioning of such loan. After receipt of NOC from Bank, CAHO shall submit the case to respective Directorate for approval.
- 25. The Administrative Department will constitute a committee for monitoring the implementation and impact of the program.
- 26. The Director Animal Husbandry Jammu/Kashmir shall draft a uniform SOP for beneficiaries which shall include checklist, all procedures involved for applying under different components of scheme. They shall also submit list of beneficiaries of the newly established units along with beneficiary and month-wise physical/financial achievements of the scheme to the Administrative Department. The same details shall be uploaded on official website of Animal Husbandry Department Jammu/Kashmir on regular basis.

### **Research and Development:**

After notification of the scheme Concerned Departments in two Universities shall submit DPRs which shall be evaluated by the Joint Committee of Directors of Research of two Universities and Directors of Animal Husbandry Jammu & Kashmir and recommended for support. The support shall be available for Research on Breed Development, Feed formulation, Health packages etc.

## PROJECT MONITORING & EVALUATION





## 26. Technological interventions for fish seed and trout production in J&K:

Sl. No	Sub-component and Activities	Unit In No.	Unit cost (Rs. lakhs)	Government Assistance(Rs. lakhs)		Terms and Conditions
				General (50%)	SC/ST/ Women (60%)	
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)
1	Establishment of Trout Fish Hatcheries.	1	50.00	25.00	30.00	<p>(i) Beneficiaries will submit Details Project Report (DPR) with full justification, technical-economical details, species to be produced, capital cost, recurring cost involved, source of funds for meeting the beneficiary contribution including bank consent, undertaking of beneficiary to the effect that no governmental assistance is availed for the proposed project, anticipated direct &amp; indirect employment generation to local population, enhancement of fish production and specific time lines for implementation of project etc.</p> <p>(ii) Beneficiary will provide documentary evidence of availability of requisite land (either own/registered lease document). In case of leased land, the lease period should be for a period of 10 years from the date of submission of DPR/SCP and registered lease document should be included in the DPR/SCP.</p> <p>(iii) Trout fish Hatchery will have a minimum capacity of 10 lakh fry/ Year or 15 lakh Eyed ova of trout/year in a minimum area of 0.4 Ha or at least 1 acre.</p> <p>(iv) The Beneficiary may also import eyed ova for hatching as per requirement and rear the hatchlings up to fry/fingerlings to facilitate continuous supply of Trout seed throughout the year.</p> <p>(v) The beneficiary should have at least 4 raceways like brood stock raceways, nursery raceways, etc. Further, it would include feeding tank, water channel &amp; electric supply, required infrastructure and other facilities.</p> <p>(vi) The Trout Fish hatchery should be managed by qualified skilled technical manpower.</p> <p>(vii) Beneficiary will ensure supply of seed produced from the Government assisted hatcheries to farmers at affordable /reasonable price.</p> <p>(viii) Post construction operation, management and maintenance of the hatcheries will be carried out in a satisfactory manner by the beneficiaries at their own cost.</p> <p>(IX) Cost of accreditation of the hatchery will be mandatorily included in project estimates.</p>
2	Construction of Raceways of minimum of 50 cubic meter	1	3.00	1.50	1.80	<p>i. The applicant should be domicile of the UT.</p> <p>ii. The unemployed interested applicant should have registered proprietary / leased or valid attorney of land where 50 cubic meter rearing space can be created with allied structures of</p>

						<p>watch and ward, feed/equipment store with dependable perennial source of water.</p> <p>iii. The final selection shall be made by the committee designated for the purpose based on feasibility of the site and other related parameters.</p> <p>iv. The applicant has to submit a valid Schedule caste/ST category certificate for consideration under the said category.</p>
3.	Inputs for Trout Rearing Units.	1	2.50	1.25	1.50	<p>(i) Beneficiaries will be provided governmental assistance for input costs for initial crop only in the newly constructed ponds/tanks.</p> <p>(ii) Governmental assistance for input cost will be released only after the rearing units are ready.</p> <p>(iii) The Governmental financial assistance is restricted to 4 nos. raceways for Individual farmer/entrepreneur and 20 units of race ways for SHGs/Co- operatives having minimum 10 members.</p>
4	Construction of new ponds.	1	1.30	0.65	0.78	<p>i. The applicant should be domicile of the UT.</p> <p>ii. The unemployed interested applicant should have registered proprietary / leased or valid attorney of land measuring at least 03 kanals of land with dependable perennial source of water.</p> <p>iii. The final selection shall be made by the committee designated for the purpose based on feasibility of the site and other related parameters.</p> <p>iv. The applicant has to submit a valid Schedule caste/ST category certificate for consideration under the said category.</p> <p>v. Post construction operation, management and maintenance of the pond will be carried out in a satisfactory manner by the beneficiaries at their own cost.</p> <p>vi. The governmental assistance is restricted to 04 ponds per individual beneficiary, (b) 2 ponds multiplied by the number of members of the group/society with a ceiling of 20 ponds per group/society in case of Groups of fishers and fish farmers i.e. fisher SHGs/Joint Liability Groups (JLGs)/Fisher Cooperatives having a minimum of 10 members.</p>
	Inputs		0.70	0.35	0.42	<p>(i) Beneficiaries will be provided governmental assistance for input costs for initial crop only in the newly constructed ponds/tanks.</p> <p>(ii) Governmental assistance for input cost will be released only after the rearing units are ready. against activity</p>
5	Establishment of Medium RAS for Cold water Fisheries. (with 4 tank of minimum 50 m <sup>3</sup> /tank capacity and fish roduction capacity of 4	1	25.00	12.50	15.00	<p>Beneficiaries will submit Details Project Report (DPR) with justification, technical-economical details, species to be produced, capital cost, recurring cost involved, source of funds for meeting the beneficiary contribution including bank consent for providing loan, undertaking of beneficiary to the effect that no other governmental assistance is availed for the proposed project, anticipated direct &amp; indirect employment generation to local population, enhancement of fish production and specific time</p>

	ton/crop)					lines for implementation of project etc.
6	Establishment of large RAS for cold water fisheries (with 10 tanks of minimum 50 m <sup>3</sup> /tank capacity and fish production capacity of 10 ton/crop)	1	50.00	25.00	30.00	<p>i. Any surface water source like canal, river, spring subsurface/ground water from open well, tube well, ground water etc. may be used for RAS.</p> <p>ii. Beneficiaries will provide documentary evidence of availability of requisite land (either own/registered lease). In case of lease land, the minimum lease period should be 10 years from the date of submission of DPR/SCP and the registered lease document will be included in the DPR/SCP.</p> <p>iii. Post construction operation, management and maintenance of the RAS will be carried out in a satisfactory manner by the beneficiaries at their own costs.</p> <p>iv. Infrastructure created should have essential requirements for RAS including water treatment units.</p> <p>v. The procurement of fish seed, feed and the market for the produce will be sole responsibility of the beneficiary.</p> <p>vi. The Governmental financial assistance is restricted to 1 unit for Establishment of Large size RAS (1 Unit=10 tanks) for individual beneficiary and 2 (two) units per group/society with production capacity of 10 ton/unit in case they are taken up by Groups of fishers and fish farmers i.e. fisher SHGs/Joint Liability Groups (JLGs)/Fisher Cooperatives etc. with minimum 10 members or those undertaken in a cluster/area approach. However, a cluster/area may have multiple groups/societies. As far as FFPOs/Cs are concerned, the modalities of implementation and upper ceiling on the total units eligible for support would be decided by the CAC.</p> <p>vii. The Governmental assistance is restricted to 1 unit for establishment of Medium RAS (1 unit= 4 tanks) for individual farmer or 2 units (2 units=8 tanks) for groups such as Co-operative/SHG etc., with a production capacity of 4 ton/unit per group/society in case they are taken up by Groups of fishers and fish farmers i.e. fisher SHGs/Joint Liability Groups (JLGs)/Fisher Cooperatives etc. with minimum 10 members or those undertaken in a cluster/area approach. However, a cluster/area may have multiple groups/societies. As far as FFPOs/Cs are concerned, the modalities of implementation and upper ceiling on the total units eligible for support would be decided by the CAC.</p> <p>viii. The RAS units include essential components such as shed/building, Store-cum-office for feed and accessories, Pump house, Grow out tanks (Circular cement tanks/ FRP tanks, including inlet, outlet central drainage), settling tanks for sludge, water storage (sump) tanks, overhead tanks, Mechanical/Bio filter, big size drum filter, Water supply system (bore</p>

						well etc., wherever required, Pumps and motors, Ozone generation system, Power generator, sludge collector, settleable/dissolved solid collectors, Bio-filters, UV units, Electrification, Aeration system (air/ oxygen), Water testing kit, inputs such as Seed, Feed, additives and supplements, electricity/Diesel, man power etc. & indirect employment generation to local population, enhancement of fish production and specific time lines for implementation of project etc.
7	Establishment of small RAS (with 1 tank of 100m <sup>3</sup> Capacity)	1	7.50	3.00	4.50	(i) DPR should also contain details of anticipated direct & indirect employment generation to local population, enhancement of fish production, specific time lines for implementation of project etc. (ii) Post construction operation, management and maintenance of the RAS will be carried out in a satisfactory manner by the beneficiaries at their own costs.
8.	Establishment of small Biofloc (with 7 tank of 4m dia and 1.5 height)	1	7.50	3.00	4.50	(iii) Infrastructure created should have essential requirements for RAS including water treatment units. (iv) The procurement of fish seed, feed and the market for the produce will be sole responsibility of the beneficiary.
9.	Establishment of Backyard mini RAS units	1	0.50	0.25	0.30	(v) Governmental assistance will be restricted to one unit of small RAS/Biofloc or 1 unit of mini RAS for individual beneficiary. (vi) Governmental assistance will be restricted to 4 units of small RAS 4 units of Small RAS per group/society in case they are taken up by Groups of fishers and fish farmers i.e. fisher SHGs/Joint Liability Groups (JLGs)/Fisher Cooperatives etc. or those undertaken in a cluster/area approach. However, a cluster/area may have multiple groups/societies. As far as FFPOs/Cs are concerned, the modalities of implementation and upper ceiling on the total units eligible for support would be decided by the CAC. (x) As far as mini RAS taken up as a group activity by Groups of fishers and fish farmers i.e. fisher SHGs/Joint Liability Groups (JLGs)/Fisher Cooperatives etc. in their own back yard, the Governmental assistance will be 1 unit multiplied by the number of members of the group/society with a ceiling of 20 units per group/society. (xi) In case of Exotic Fish Species, permission from Govt. is mandatory.
<b>CONSTRUCTION OF COLD STORAGE/ICE PLANTS</b>						
	Plant/storage of minimum 10-ton Capacity.	1	40.00	20.00	24.00	(i) Beneficiaries will submit Detailed Project Report (DPR) with justification including demand and supply gaps, detailed cost estimate, technical specifications of the components of the ice plant/cold storages, recurring cost involved, source of funds for meeting the beneficiary contribution including bank consent for providing loan, undertaking of beneficiary to the effect that no other governmental assistance is availed for the

						<p>proposed project, anticipated direct &amp; indirect employment generation to local population, and specific time lines for completion of the project etc.</p> <p>(ii) Cost estimates will be based on the latest SoRs admissible in the project area and prevailing market rates.</p> <p>(iii) Beneficiaries will provide documentary evidence of availability of requisite land (either own/registered lease), necessary clearances/permissions from the concerned State/UT/authority as may be required. In case of lease land, the minimum lease period should be 10 years from the date of submission of the DPR/SCP and the registered lease document will be included in the DPR/SCP.</p> <p>(iv) The Beneficiaries will submit an undertaking in the DPR to the effect that all operational, maintenance and post construction management costs of the infrastructure facilities will be borne by them and the ice plant/cold storage will be kept in operational condition.</p> <p>(v) The Governmental assistance for these ice plant/cold storage projects will be as per actual cost within the overall ceiling indicated in the respective sub-components/activities under the scheme.</p> <p>(vi) Beneficiaries will display a board permanently at the infrastructure facilities to the effect that the Ice plant/cold storage is constructed with Government financial assistance under the scheme</p> <p>(viii) The Beneficiaries will ensure supply of ice produced from the government assisted ice plant to the fishers and fish farmers at affordable price.</p> <p>(ix) The beneficiary will abide by the government regulations, if any in development, operation and management including quality assurance etc., of the ice plant/cold storage. employment generation to local population, and specific time lines for completion of the project etc.</p>
9	Refrigerated Vehicles	1	25.00	12.50	15.00	<p>i. Beneficiaries will submit Self Contained Proposal (SCP) together with availability of financial resources for meeting the beneficiary share etc. Beneficiaries should ensure that fish transport facilities are maintained in operational condition. Maintenance &amp; operational costs of the fish transport vehicles shall be met by the beneficiaries at their own cost.</p> <p>ii. The Government shall not be responsible for any losses incurred on procurement, operation, maintenance and management of the fish transport facilities.</p> <p>iii. Beneficiaries will abide by rules/regulations, if any imposed by the concerned State/UT as well as Central Government on maintenance &amp; operation of the fish transport facilities.</p>

						<ul style="list-style-type: none"> <li>iv. Beneficiaries will ensure that the fish transport vehicles/facilities procured under the scheme will be used only for transport of fish and fisheries related items and not for any other purposes.</li> <li>v. In case, it is found at any point of time that the fish transport vehicles procured under the scheme are used for other than the fisheries purposes, the Government will recover the entire assistance with interest from the beneficiaries.</li> <li>vi. Beneficiaries will display permanently to the effect that the fish transport vehicle is procured with Government financial assistance under the scheme.</li> <li>vii. Live fish vending center can be a stationary center or mobile vehicle or a combination of both.</li> </ul>
<b>10</b>	<b>FISH FEED MILLS</b>					
(a)	Mini Mills of production Capacity of 2 ton /Day	1	30.00	15.00	18.00	<ul style="list-style-type: none"> <li>i. Beneficiaries will submit Detailed Project Report (DPR) with justification including demand and supply gap in the project locality, detailed cost estimate, technical specifications of the components of the feed mill/plant, recurring cost involved, source of funds for meeting the beneficiary contribution including bank consent for providing loan, undertaking of beneficiary to the effect that no other governmental assistance is availed for the proposed project, anticipated direct &amp; indirect employment generation to local population, and specific time lines for completion of the project etc.</li> <li>ii. Cost estimates of the feed mill/plant will be based on the latest SoRs/ prevailing market rates.</li> <li>iii. Beneficiaries will provide documentary evidence of availability of requisite land (either own/registered lease), necessary clearances/permissions from the concerned State/UT/authority as may be required. In case of lease land, the minimum lease period should be 10 years from the date of submission of the DPR/SCP and the registered lease document will be included in the DPR/SCP.</li> <li>iv. The Beneficiaries will submit an undertaking in the DPR to the effect that all operational, maintenance and post construction management costs of the infrastructure facilities shall be borne by them and the ice plant/cold storage will be kept in operational condition.</li> <li>v. Beneficiaries will display a board permanently at the infrastructure facilities to the effect that the feed mill/plant is constructed with Government financial assistance under the scheme.</li> <li>vi. The Beneficiaries will ensure supply of feed produced from the government assisted feed</li> </ul>

						<p>mill/plant to the fishers and fishfarmers at affordable price.</p> <p>vii. The beneficiary will be abide by the government regulations, if any in development, operation and management including feed quality assurance etc.</p> <p>viii. The Governmental assistance for these projects will be as per actual cost within the overall ceiling indicated in the respective sub-components/activities under scheme.</p> <p>ix. Accreditation of the feed mill will be part of the project estimates and it is mandatory.</p>
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## **27. PROMOTION OF WOOL/PELT PROCESSING AND MARKETING:**

- i) 80 awareness/trainings/sensitization/outreach/capacity building programmes for wool (40 each in Jammu and Kashmir divisions) shall be conducted by Sheep Husbandry departments in collaboration with SKUAST-K and SKUAST-J. For pelt, 80 awareness/trainings/ sensitization/ outreach/capacity building programmes (40 each in Jammu and Kashmir divisions) shall be conducted by urban local bodies/ Municipalities in collaboration with SKUAST-K and SKUAST-J. This will create a common platform of knowledge, technical and marketing. Besides, this will also connect different organizations including banking Institutions, NABARD, EDI etc. to the harvesters/farmers/entrepreneurs etc. for increasing entrepreneurial/startups in wool and pelts.
- ii) Survey based identification of constraints and gaps related to wool and pelt processing shall be conducted by SKUAST-K and SKUAST-J and suitable working modules shall be identified for implementation.
- iii) Forty FPO's (2 per district) shall be constituted by Sheep Husbandry Departments of Jammu and Kashmir Divisions during the initial period of two years for implementation of the project activities by building integrated network of different stakeholders for integrated activities such as aggregation, processing and marketing etc. of wool and pelt.
- iv) Each FPO's shall be strengthened by providing financial assistance of 5.00 lakhs. Further, 30 mobile shearing and bailing units, each costing 40.00 lakhs shall be provided to the FPO's (100% under capex budget) through Sheep Husbandry Departments.
- v) 20 common facilitation centers providing cold storage & preliminary processing facilities (for pelt); and spinning, weaving, knitting and felting units (for wool) at district/regional levels by line departments viz; sheep Husbandry, Department of Handloom and Handicraft, urban local bodies/municipalities on cluster basis shall be formed for better value realization to augment the revival of woollen and pelt based cottage industry.
- vi) Integration of wool trade activities in the existing agricultural mandis in the region shall be carried out by Sheep Husbandry Departments of both Jammu and Kashmir in consultation with APD and other concerned departments. 4 integrated mandis, 2 each at Jammu and Kashmir Divisions shall be operationalized in phased manner with a provision of Rs 1 Cr for creating necessary infrastructure and other support facilities under UT capex budget.
- vii) Wool board shall be revived by providing the revolving fund of 20.00 crores (from UT capex budget) in a period of two years through APD and Sheep Husbandry Department so as to provide a support to the wool growers for effective marketing and linkages.



- viii) Private entrepreneurs shall be facilitated (without any financial assistance) in establishment of the primary processing units. However, such establishments shall be supported as per the provisions of Industrial Development Schemes. Moreover, SKUAST-K, SKUAST-J and Agricultural Production Department shall provide technical and mentorship guidance, wherever necessary.
- ix) R & D interventions shall be provided by SKUAST-K, SKUAST-J in collaboration with SHD-K and SHD-J. For diversification and development of diversified value-added woolen products, extensive R&D facilities shall be carried at SKUAST-K and SKUAST-J. However, for fur-based R&D, an integrated cluster at industrial area, lassipora shall be upgraded along with testing facilities under SKUAST-Kashmir.
- x) For development of advanced value-added products through R&D, SKUAST-K shall also work in collaboration with ICAR-CSWRI Avikanagar, Central Leather institute Tamil Nadu, Department of Handloom and Handicrafts Kashmir, Craft Development Institute and National Institute of Fashion Technology Kashmir.
- xi) The technologies developed by SKUAST-K and SKUAST-J shall be disseminated through Developments Departments viz; SHD-K and SKD-J; Handloom and Handicrafts Kashmir, entrepreneurs etc.
- xii) The project activities shall be monitored by designated officers viz; Director Research, SKUAST-K and Director Research, SKUAST-J; Director Sheep Husbandry Kashmir and Jammu to verify the overall progress of the project as and when required.

## 28. DEVELOPMENT OF FODDER RESOURCES FOR UT OF J&K:

### Project Partners

#### ORGANOGRAM



#### EXECUTIVE SUMMARY

<b>Title</b>	<b>DEVELOPMENT OF FODDER RESOURCES FOR UT OF J&amp;K</b>
<b>Vision</b>	To narrow down the fodder deficit of the UT of J&K
<b>Mission</b>	Towards self-sufficiency in fodder development for supporting burgeoning livestock population and industry
<b>Definition of Problem</b>	The total annual fodder requirement of bovines and sheep/ goat is 96.425 Lakh tons and 33.069 Lakh tons, respectively. Feed cost constitutes ~ 75% of the total milk cost and the green fodder constitutes 35% of the total feed input. The region produces around 64 lakh MT of green fodder and 35 lakh MT of dry fodder against the requirement of 139.13 lakh MT and 58.53 lakh MT, respectively with an overall deficit of about 40.93%. The area under cultivated fodder crop varieties is barely 4% of the total cultivated area
<b>Interventions/ Strategies</b>	Three pronged strategy shall be followed to pursue the objectives: <ul style="list-style-type: none"> <li>• Fodder Production</li> <li>• Processing and value addition</li> <li>• Varietal Improvement and crop diversification</li> </ul>
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Large scale production of fodder/ feed, processing and value addition through pilot scale demonstrations and technological interventions augmented through Capital infusion &amp; incentives</li> <li>2. Innovative approaches for green fodder production &amp; mass multiplication under Hi-tech agriculture</li> <li>3. Genetic improvement of conventional fodder crops for yield and quality</li> <li>4. Rejuvenation and promotion of Horti-Silivi-pastoral Systems and grasslands</li> </ol>
<b>Output</b>	<ol style="list-style-type: none"> <li>1. Farmer demo plots on 4100 ha/year</li> <li>2. 300 hay-silage making units</li> <li>3. Creation of 25 fodder depots 500 hydroponic units (15,000 MT green fodder output)</li> <li>4. 30-40% increase in productivity from fodder crops by use of improved varieties</li> <li>5. 15 lac MT of fodder (15% of deficit) from 60,000 Ha (25% of total) orchards</li> <li>6. 3.75 Lakh MT of fodder from forest closures (25,000 ha)</li> <li>7. 1.0 Lakh MT of fodder from alpine &amp; sub-alpine grasslands (20,000 ha)</li> </ol>
<b>Outcome/ Impact</b>	<ul style="list-style-type: none"> <li>• Development &amp; Promotion of Varieties with early maturity, climate resilience &amp; high yield/biomass</li> <li>• Validation &amp; Adoption of Hi-tech hydroponics farming models</li> <li>• Optimum land use in orchards</li> <li>• Replenishment of forest ecosystem</li> <li>• Rejuvenation/ improvement of alpine/ subalpine pastures/ grasslands</li> </ul>

	<ul style="list-style-type: none"> <li>• Entrepreneurship development and employability</li> <li>• Farmers training and knowledge development (this will create a scope of narrowing down the fodder deficit even further)</li> <li>• Self-sufficiency in Fodder sector will lead to strengthening of dairy farms and better returns</li> <li>• <b>REDUCTION OF FODDER DEFICIT BY 80%</b></li> </ul>	
<b>Sector/ Department Involved</b>	<ul style="list-style-type: none"> <li>• APD, GoJK</li> <li>• SKUAST-Kashmir</li> <li>• SKUAST-Jammu</li> <li>• Department of Agriculture, J/K</li> <li>• Department of Animal Husbandry, J/K</li> <li>• Department of Sheep Husbandry, J/K</li> <li>• ICAR-IGFRI, Srinagar</li> <li>• Forest Department, J&amp;K</li> </ul>	
<b>Target Beneficiaries</b>	Direct beneficiaries : 5000 farmers / growers Indirect beneficiaries : 7500	
<b>Budget Required</b>	<b>Total Outlay of Project</b>	<b>Rs. 129.05 Cr</b>
	Capex (Existing)	Rs. 129.05 Cr
<b>Economic Analysis</b>	Project Duration	5 Yrs
	Gross output of Sector at current year (2021-22)	5000 Cr
	Current Growth rate	1%
	Estimated growth rate at the end of the project	5%
	Gross Output of the sector after 5 years	6650 Cr
	Return on investment	1 : 6.2

### **Capital infusion to incentivize fodder production, processing and value addition through pilot scale demonstrations and technological interventions**

This project is conceived to be multi-dimensional and to operate under network mode. Any technology developed under various themes of the project are thought to be demonstrated at farmers fields and at experimental units. The account of various products in context of end user demonstrations are given below:

#### **Road map for the implementation of the proposed activities**

<b>S. No.</b>	<b>Action Point</b>	<b>Agencies involved</b>
1.	Demonstration, Training of farmers, Field trials at farmers field, package of practices	District KVKs /SAUs/IGFRI/NDRI
2.	Extension activities and development of fodder warehouse	Milk Centres / UT Line Deptts.
3.	Dry fodder processing, value addition and fodder management (chaff cutter, Fodder block, Baling, grinding)	SAUs / District level FPOs /Animal/ Sheep Husbandry Dept. /Agriculture Deptt.
4.	R & D activity (Evaluation of fodder quality, food-feed crops, Hydroponics etc.,)	SAUs / ICAR-IGFRI
5.	Capacity building of stake holders	SAUs/ ICAR Institutes

### Implementation level plan for pilot project:

Pilot project is proposed in the selected areas to assess the acceptability and impact of technology and also refinement in technology and methodologies, if required. Pilot project is to be implemented in selected villages of identified districts of each agro-climatic zone. The list of selected/identified districts on the basis of dry matter requirement and availability in different agro-climatic zones of UTs of J & K.

### Agro-climatic zone wise selected/identified district

S. No.	Zone	Farming situation	Identified Districts
1.	Zone A (Sub-tropical/Shiwaliks)	Irrigated	Jammu, Kathua
		Rainfed	Samba
2.	Zone B (Sub-temperate/mid-hill zone)	Irrigated plain zone	Rajouri
		Rainfed High hill zone	Udhampur
		Rainfed high hill zone	Doda
3.	Zone C (Temperate zone)	Low lying irrigated areas	Ganderbal, Bandipora, Kulgam
		Karewa uplands	Budgam, Pulwama
		Irrigated Karewas	Budgam, Shopian

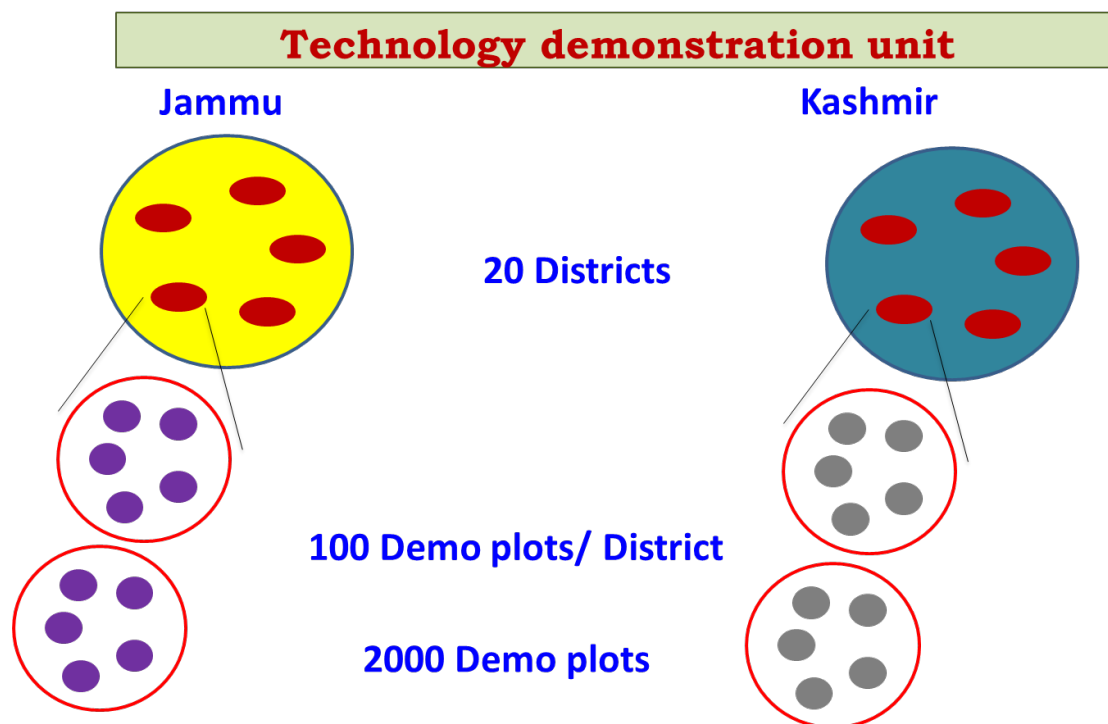
### Incentivizing / Input to farmers: Machinery, seed kits, Pilot Demos:

Activity*	Physical target	Financial Incentive per unit	Amount (Rs. Lakh)	Remarks
Fodder Demonstration Plots (Varieties) / Mini Fodder Banks (5 Kanal per Demo)	100 demos per District , Total 2000 Demos (500 ha)	Rs. 5000 per Demo	100	Additional dry fodder yield of 15000 Tons
Fodder Seed Kits (Hybrids): Incentive on Hybrid seed (1.5Kg per Kanal) 1500 Ha Orchards shall be covered under the program	72000 Kanals (3600 ha)	Rs. 300/Kg	330	Additional dry fodder yield of 1 Lakh Tons
Hydroponic Fodder units	100 units	50% Subsidy with a ceiling of Rs. 2.50 lakh per unit	250	Additional dry fodder yield of 25000 Tons

Hay/ Silage making Unit (Integrated with tractor/reaper/chaff cutter & packaging facility)	60 units	50% subsidy with maximum ceiling of Rs 10.00 lakh	600	This shall help in the processing and value addition
Establishment of Fodder Depots in fodder deficient areas	20 Depots	50% Subsidy with ceiling of Rs 10.00 lakh	200	Quality fodder will be readily available in each district
Chaff Cutter 3KW and above capacity (electric operated or diesel operated)	400 Nos.	50% subsidy with maximum ceiling of Rs 0.40 lakh	160	Farm Automation (brings 30% efficiency in nutrient availability and 10% savings on fodder quantity)
Fodder cutter /Reaper	400 units	50% subsidy with maximum ceiling of Rs, 0.50 lakh	200	Farm Automation
<b>Total cost involvement</b>			<b>1840</b>	

*\*Activities, financial outlay and impact analysis of different beneficiary-oriented activities to be taken up per year*

*\*\* The cost of incentives and inputs proposed can be met from CAPEX head*



## **The components where incentives/ subsidy will be available:**

### **A) Cattle Feed Processing Units:**

- i) Establishment of Commercial Cattle/ Poultry Feed Mill/Plant.
- ii) Establishment of Nano/small Cattle/ Poultry Feed Mill/Plant.

### **B) Fodder Development:**

- i) Establishment of Silage Making Unit.
- ii) Assistance for purchase of Fodder Harvester/ reaper/ Chaff Cutters.
- iii) Establishment of Hydroponic fodder making unit.
- iv) Assistance for Fodder Demonstration Plots/ Mini Fodder Banks
- v) Assistance for Fodder seed kits (Hybrid seed).
- vi) Establishment of Azolla Fodder plot.

## **The scheme shall be implemented in network mode:**

### **1. The role of Universities (SKUAST-K & J):**

- To make available the basic seed input and the fodder varieties which are nutritionally rich
- To extend the technologies on Fodder processing (Silage, Hay, etc.) along with the list of crops and crop calendar for the year.
- To work out and demonstrate the hydroponics farming at experimental units and at farmers locations.

### **2. The role of line departments:**

- Up-scaling of the technologies with large-scale demos in collaboration with the Universities.
- Providing incentives and inputs in the form of machines, equipment and operational farm input from the incentives budget head.

## **Eligibility of beneficiary (individual/ farmer group):**

- i. Any individual /group of individuals/dairy Farmer/milk federation/self-help group/ dairy cooperative society/Farmer producer organization can avail the benefits of scheme.
- ii. Geo tagged photographs of units along with complete details of beneficiaries including Aadhaar No./ relevant registrations of SHG;s/FPO's/Cooperatives shall be recorded. Such beneficiaries will be approved through concerned officers of line departments. Chief Agricultural officer and University working group shall demarcate the sites of demonstrations as per following criteria:
  - Administrative District (refer table above).
  - Geo-coordinates
  - Land holding (Min. 5 Kanals)
  - Source of Irrigation
  - Nature of beneficiary participation (Individual / Group)

- iii. The purchase of equipment/machinery/ Plant shall be made from any registered company/ authorized dealer/ distributor/ sole manufacturer within or outside Union Territory of JK in accordance with minimum standard specifications in vogue as issued by the department or any central government institute
- iv. The machinery/equipment should be certified as per requisite safety / quality standards and subsidy shall be released as fixed per unit by the department regardless of prices as long as specifications prescribed are met.
- v. No incentive shall be provided on purchase of old machinery or equipment or accessory.
- vi. In case beneficiary wants to pool his additional capital in the form of loan the Project instigators shall provide him beneficiary certificate to avail such facility. The Project shall not be a part to the loan or any kind of advance or the benefit or loss accruing from such venture.
- vii. The Administrative Department will constitute a monitoring committee for monitoring the implementation and impact of the program.
- viii. The project committee shall draft a uniform manual for beneficiaries which shall include checklist, all procedures involved for applying under different components of scheme. They shall also submit list of beneficiaries with address/phone number and photographs along with equipment/ facility and month-wise details of utilization of subsidy to the Administrative Department. They shall also upload the same on official website.

**Seed requirement for Pilot scale studies/ Demos:** In order to undertake the large scale demonstrations and fodder production across J&K, the total requirement would be 32 tons of quality seed across different annual and perennial crops.

**Seed requirement for pilot scale studies and demonstrations**

Kind	Seed rate (kg/ha)	Demo Unit (5 kanal)	No. of Demos	Seed Req. (t)
Cultivated annual	30	8.0 kg	2000	16
Cultivated perennial	10	2.5 kg	2000	5
Grassland	15	3.0 kg	2000	6
Horti-pasture	10	2.5 kg	2000	5
			<b>Total</b>	<b>32</b>

\*The calculations have been done based on standard seed rate for each of the crops:

Annuals: Fodder Maize; Sorghum; Fodder Cowpea; Oats

Perennials: Sainfoin (*Onobrychis viciifolia*); Red & white clover; BN Hybrid; Guinea Grass; Tall fescue; *Phalaris*

**Objective 2. Innovative approaches for green fodder production & mass multiplication under Hi-tech agriculture (Annexure-II)**

- a) Construction of farmer friendly low cost hydroponic units for Jammu and Kashmir

- b) Demonstration and popularization of hydroponic green fodder production technology for wider adaptability in the UT of J&K
- c) Analysis of the economic feasibility of the technology vis-à-vis different crops and farm locations

Universities shall transfer the technology to the stake holders through the following activities:

1. Construction of high-cost automated hydroponics units at universities/ line departments for research purpose.
2. Construction of farmer friendly low cost hydroponic units for demonstrations
3. Production of hydroponic green fodder for year round availability in Jammu and Kashmir
4. Demonstration and popularization of hydroponic green fodder production technology for wider adoptability in the UT of J&K
5. Analysis of the economic feasibility of the technology

### **Objective 3. Genetic improvement of conventional fodder crops for yield and quality**

#### ***Varietal Development:***

- **Development of new varieties in oats, barley, bajra, BN hybrids, maize**
- **Nutrient profiling and evaluation of available fodder varieties and diverse germplasm lines (Legume: Cereal mix rationing; Feed blocks, Hay and silage making)**

**The strengthening of labs at SKUAST-K and SKUAST-J: The lab equipment shall be purchased through approved sources/ GeM Portal after meeting out codal formalities**

**The lab research shall help to execute the part of research activities in line with the targets set under Objectives 1 to 4**

#### **Guidelines for enhancement of nutrition status of fodder varieties and their deployment to end user beneficiaries:**

- a. Samples of fodder crops, fodder grasses, tree foliage's and hydroponic fodders shall be collected from concerned units of SKUAST-K and analyzed for proximate composition and fibre fractions to evaluate their potential nutritive values in terms of IVDMD, IVOMD and IVNDF by conducting *in vitro* trials.
- b. Different fodder crops, tree foliage's and hydroponic fodders developed by concerned units of SKUAST-K shall be procured in bulk, processed in various forms



and will be fed to different livestock species during *in-vivo trails* carried out in sheep/goat at MRCS&G, Shuhama and in cattle at MLRI, Manasbal to elucidate their palatability with effect on growth rate, feed efficiency, milk production and digestibility of nutrients.

- c. Nutritional analysis of pasture grasses/fodder grasses shall be carried out to determine their nutritive value (DCP, TDN & ME) and palatability by the grazing animal. Digestibility of the composite pasture grasses shall also be determined.

During awareness cum training programs, the farmers will be trained and made aware about different fodder processing technologies like chaffing, soaking, total mixed ration/complete feeds, ration balancing, precision feeding, etc. Farmers will be trained about fodder conservation techniques like hay and silage making. (*Note: Hay making is the first choice of fodder conservation technique as it involves low technical knowhow and investment*). Impact analysis shall be conducted from time to time to know the acceptance and adaptation of these fodder processing technologies and conservation techniques.

**Objective 4. Rejuvenation and promotion of Horti-Silivi-pastoral Systems**

**✚ Guidelines operational for CAMPA will be followed for working activities under the proposed objective**

**Important grasses in different zones which can be grown in fruit orchards**

Zone	Districts	Fruit crop	Grass	Legumes
Temperate Zone	Anantnag, Pulwama, Ganderbal, Baramulla, Srinagar, Shopian, Budgam, Kulgam, Kupwara, Bandipore	Apple Almond Walnut, Pear, Cherry, Peach, Plum	Tall fescue, orchard grass	Lucerne, White clover, Red clover, Sainfoin
Intermediate Zone	Doda, Rajouri, Poonch, Udhampur	Peach Plum, Apricot, Olive, Pomegranate	Perennial rye grass, tall fescue, setaria grass, anjan grass, Dactylis	White clover, Stylosanthus
Sub-tropical Zone	Jammu, Kathua, Samba and parts of Udhampur	Mango, citrus, Ber	Guinea grass, Bajra, Bajra Napier Hybrid, Setaria, Dicanthium	Dolichus, Siratro, Berseem, Trifolium

**Reseeding & de-weeding of Pasture lands / Open forest lands & Closures**

***Guidelines for beginning and ending heights for grazing and recovery period for selected forages under rotational grazing:***

Forage crop	Target height (inches)		Usual recovery period (days)
	Begin grazing	End grazing	
Alfalfa (grazing type)	10-16	2-3*	15-30
Bahiagrass	6-10	1-2	10-20
Bermudagrass	4-8	1-2	7-15
Big bluestem	15-20	10-12	30-45
Clover, white and sub	6-8	1-3	7-15
Clovers, all others	8-10	3-5	10-20
Dallisgrass	6-8	3-4	7-15
Eastern gamagrass	18-22	10-12	30-45
Fescue, tall	4-8	2-3	15-30
Indiangrass	12-16	6-10	30-40
Johnsongrass	16-20	8-12	30-40
Orchardgrass	8-12	3-6	15-30
Ryegrass, annual	6-12	3-4	7-15
Sericea lespedeza	8-15	4-6	20-30
Small grains	8-12	3-4	7-15
Switchgrass	18-22	8-12	30-45

Source: Ball et al., 2007.

### *Interventions for which Capital infusion is required*

- De-weeding of Open Pastures and Reseeding of pastures with improved varietal seeds (Collaboration between SKUAST-J & K, Forest Deptt. and Animal/Sheep Husbandry Department & Agriculture Department)
- Rotational Grazing (Forest & Sheep Husbandry Department)
- Awareness of Migratory Breeders (by SKUAST J&K/ Animal/Sheep Husbandry Deptts.)
- Use of ATV's/ AI-Drone Tech for reseeding of pastures ( SKUAST J&K /Sheep Husbandry & Forest Department)
- Large scale production of seed pellets and seed balls (SKUAST J&K & Forest Deptt.)
- Plantation of Tree mother blocks (SKUAST J&K & Forest Deptt.)

### **Methodology**

#### **Step: 1**

Detailed survey will be carried out for the identification of superior stock of the selected tree species which are ecologically suitable for plantation in model areas. The survey will be initiated from 1st week of March and maximum possible suitable tree species will be identified and selected for planting under model plantations.

#### **Step: 2**

After identification and selection of superior tree species, their propagation material (i.e. cuttings, suckers, etc.) will be collected for its multiplication and production of planting material.

### Step: 3

A well-established nursery or mother block will be developed in the area to be allocated by the Forest Department. The propagation material collected from the identified and selected superior tree species will be planted in that nursery for mass multiplication and production of vigorous plants for planting out.

### Step: 4

All the nursery operations like, irrigation, weeding, hoeing, fertilization etc. will be carried out as and when required so that healthy and vigorous seedlings are produced till the completion of one growing seasons. These one year old plants will be planted for establishment of model plantations depending upon the site factors and evaluation after second year growing season for various growth factors.

**Choice of grasses** (*Note: Target shall be to maintain 30-40% of legumes in pasture lands*)

- a) Non-Legumes: Tall fescue; Meadow fescue; Orchard grass; Brome grass; Rye grass; Timothy; Italian Ryegrass; Hybrid Phalaris
- b) Legumes: Red clover; white clover; Birds foot trefoil; Vetch; Lucerne or Alfalfa; Sainfoin; White sweet clover

### Different fodder tree species which can be popularized and planted on large scale

S. No	Jammu specific tree species		Kashmir specific tree species	
	Scientific Name	Common Name	Scientific Name	Common Name
1	<i>Bauhania spp</i>	Kachnar	<i>Celtis australis</i>	Nettle trees
2	<i>Grewia spp</i>	Dhaman	<i>Aesculus</i>	Horse chestnut
3	<i>Ficus spp</i>	Trambal	<i>Populus spp.</i>	Populus
4	<i>Albizzia spp</i>	Sirus	<i>Robinia pseudoacacia</i>	Robinia
5	<i>Zizyphus spp</i>	Ber	<i>Salix spp.</i>	Willow
6	<i>Acacia spp</i>	Babool	<i>Ulmus wallichiana</i>	Elm
7	<i>Celtis australis</i>	Nettle trees	<i>Morus spp.</i>	Mulberry

### Trainings

- Exposure visits and Training of progressive farmers at IGFRI, Jhansi and other ICAR institutes, NDRI, GBPUAT, VPKAS Almora and nearby states/NDDB, Anand shall be undertaken. The trainings shall be provided in two phases:

Phase-I: Trainings to master trainers: Five master trainers (farmers) from each district shall be chosen and deputed to different Institutions for one week training and exposure visit.

Phase-II: Master trainers on return would apprise the progressive farmers about the knowledge and latest technology in fodder production.

Phase-III: Selected farmers with better achievements and progress at the 4-5<sup>th</sup> stage of the project shall be deputed for trainings.

- Local trainings shall be provided by Forest Dept./ Agriculture/ ASH/SKUAST J-K to all the farmers from different clusters on time-to-time basis.

### **Areas of Training and Demonstrations**

- Seed production (Participatory mode)
- Post-harvest processing (Silage, Feed blocks)
- Hydroponics
- Reseeding & Deweeding pasture lands (Pilot scale)
- Scientific grazing practices

## **ANNEXURE-I**

### **Incentives for Farm Machinery/ equipment for Fodder harvesting and processing**

#### **HARVESTER:**

#### **1. Brush Cutter**

##### **Specifications**

Type: Back pack petrol 2 stroke engine

Fuel tank capacity: 900 ml

Engine RPM: 6500-7000

Net weight: 8 kg

Displacement: 51.7 cc



#### **2. Vertical Conveyor Reaper (VCR):**

##### **Specifications:**

No. of crop dividers: 6

Power source: 8-10 hp engine

Effective width: 0.8-1.2 m

Field capacity: 0.2-0.4 ha h<sup>-1</sup>

Field efficiency: 70-80%



**Tractor operated VCR  
Specifications**

Working width: 2.2 m  
Field capacity: 0.3-0.4 ha h<sup>-1</sup>  
Weight: 180 kg



**Self-propelled VCR  
Specifications**

Engine: 6 hp  
Cutter bar: 76.2 mm  
Operating speed: 3-3.5 kmph  
Field capacity: 0.25-0.3 ha h<sup>-1</sup>  
Field efficiency: 60-70 %



**3. Self-propelled reaper binder**

**Specifications:**  
Cutting width: 1.2 m  
Cutting height: 50-70 cm  
Fuel consumption: 1 litre per hour  
Field capacity: 0.4 ha h<sup>-1</sup>



**4. Remote controlled Harvester**

**Specifications**  
Effective width: 50-80 cm  
Field capacity: 0.1-0.2 ha h<sup>-1</sup>  
Power source: Battery

**5. Tractor Operated mower  
Specification**

Power source: 40 hp tractor  
Weight: 600 kg  
Working width: 1.79 m  
Size of cut: 7-9 cm



**PRUNING MACHINES:**

**1. Tractor operated pruning machine**

**Specifications:**



Cutting height: 20 ft.

Field capacity: 200 plants per hour

Power source: 40 hp tractor

Hydraulic motor: 15 kW

## **DRONE**

### **1. BATTERY POWERED DRONE FOR SPRAYING**

#### **Specifications**

Max. weight: 55 kg

Hovering time: 30 min

Operating speed: 8 metre per second

Spray width: 4-6 m

No. of nozzles: 4

Battery: 6 S 16000 mAh

Intelligent spraying: Terrain following radar



### **2. DRONE FOR SEEDING**

#### **Specifications**

Motor thrust: 800 g per axis

No. of axis: 4

Speed: 5 m s<sup>-1</sup> or 18 m s<sup>-1</sup>

Flight time: 30 minutes

## **FODDER CROP THRESHER**

#### **Specifications**

Power source: 50 hp tractor

Safety: Reverse gear

Threshing drum diameter: 850 mm

No. of blades: 03

Threshing mechanism: Cylinder concave

Feeding chute: 90 cm with 45 cm covered

No. of sieves: 03



## **TRACTOR OPERATED BALER**

### **Specifications**

Field capacity: 0.689-0.742 ha h<sup>-1</sup>

Time to cover one hectare: 1.35-.145 hours

No. of bales: 56-59 bales per hour

Mass of the bale: 24.82-26.02 kg

Output handling capacity: 1447-1511 kg per hour

Bale density: 89.9-96.1 kg m<sup>-3</sup>



## **ANNEXURE-II**

### **Capacity, output and economics of hydroponic production units**

The capacity and output of some workable designs to grow hydroponic fodder:

#### **Size of unit: 4m x 3m x 3m**

No. of trays =70 Trays

Produces =140 kgs of fodder per day

Amount of water = 140 x 1.5 = 210 litres

Can feed

- 10 cows per day
- 47 sheep and goats
- 1,610 Birds per day

#### **Size of unit: 5m x 3m x 3m**

No. of trays =120 Trays

Produces =238kgs of fodder per day

Amount of water=238 x 1.5 = 357litres of water

Can feed

- 17cows per day
- 79 sheep and goats
- 2,760 Birds per day

#### **Size of Unit 5m x 6m x 3m**

No. of trays =180 trays

Produces =25 trays x 10 = 350 kgs per day

Amount of water = 350 x 1.5=525 litres

Can Feed

- 25 cows per day
- 167 sheep and Goats
- 4,140 Birds per day

**Size of unit: 7m x 5m x 3m**

No. of trays = 230 Trays Produces = 8 kgs per day

Amount of water = 525 Litres

Can Feed

- 32 cows
- 149 Sheep and Goats
- 5,290 Birds per day

**Size of unit: 8m x 10m x 3m**

No. of trays = 600

Trays Produces = 1190 kgs

Amount of water = 1785 litres

Can Feed

- 85 cows per day
- 396 Sheep and goats
- 13,800 Birds per day

**Size of unit: 10m x 12m x 13m**

No. of trays = 750

Trays Produces = 1,498 kgs per day

Amount of water = 247 liters

Can Feed

- 107 Cows
- 499 Sheep and goats
- 17,250 birds per day

**Size of unit: 10m x 18m x 3m**

No. of trays = 1,150 Trays Produces = 2296 kgs per day

Amount of water = 3444 litres

Can Feed

- 1150 Cows
- 765 Sheep and Goats
- 26,450 birds per day

**Size of unit: 10m x 22m x 3m**



No. of trays =1,600

Trays Produces =3192 kgs per day

Amount of water=4788 litres

Can Feed

- 228cows
- 1064 Sheep and Goats
- 36,800 birds per day

### **BUDGET FOR COMMERCIAL UNIT (Size of unit: 8m x 10m x 3m)**

<b>Budget Head</b>	<b>Total (in lakh)</b>
Construction of hydroponics unit (MS square pipe) 12 x 6 x 8 fit	3.50
PVC Fitting Materials	1.00
Labour	1.50
Trays (18 x 24 inch) @ Rs. 650 x 600	3.90
Consumables	1.50
Stand for over head tank (10 fit)	0.50
Poly house with semi operated (Temperature, Light and humidity)	6.50
Installation charges (hydroponics system)	1.20
<b>Total</b>	<b>19.60</b>

### **ECONOMICS FOR SMALL UNITS**

#### **Fixed cost**

Hydroponic structure has initial cost of 51884 Rs/6m.sq

Comprised of the cost of 1 hp pump coupled with an electric motor as. Fixed cost in Rs/ha per year was calculated as follows.

1. Interest on initial cost @ 12 per cent=6226 Rs/6m.sq.
  2. Depreciation of the system =2283 Rs/6m.sq.
  3. Total= 8509 Rs/6m.sq.
  4. The motor and system can be used for all seasons in a year.
- Therefore, fixed cost required for one season = 3500 Rs./6m.sq

#### **Operating cost**

Management and input cost of hydroponic structure with green shad net.

1. Management and input cost = Rs. 3100 /6m.sq.
2. Interest on management and input cost at 12% for crop period of 12 months = 372 Rs./6m.sq.
3. Total operating cost = Rs.3472 /6m.sq.

**Total cost** = Fixed cost + Operating cost = 3500+ 3472 = Rs. 6972 /6m.sq.

Conditions	Yield of HWF (Kg/sq. m)	Gross return (R/Sq.m)	Total cost (R/Sq.m)	Net Return (R/Sq.m)	B.C. Ratio
Hydroponic fodder production system	4820	25500	6972	18528	3.5
Field condition	2530	12250	6972	2983	1.7

### Construction of Hydroponic fodder system and process

To grow good quality fodder, you need to be able to control the temperature and humidity. The fodder easily grows in semi-controlled environmental conditions with the temperature range of 15-32 °C and relative humidity of 80-85%. Also, control light is needed to grow fodder, so need to build a small shed net or a low-cost greenhouse. To make shed net or a low-cost greenhouse we can use bamboo log, iron rod or plastic pipe for structure construction purpose will required shade netting or gunny bags to cover this structure.

### Growing Hydroponic Fodder

Typically, the seed is spread in a wide channel and kept moist. In a few days it will sprout and, in a week, or so it will become a six- to eight-inch-high mat. The mat of fodder is then cut into manageable lengths and rolled up. The mat of roots and green foliage is fed in its entirety to the animals. The advantages of growing fodder this way is that there are no big land requirements and you can always feed fresh grass with minimal water usage. Recycling the water is not always the best method, because there is so much sugar in the grain that the tank can become fermented and contaminated pretty quickly. Often that waste water can be used for other purposes such as feeding animals or irrigate gardens or lawns.

The usual set up is to have a bank or rack of 12' long growing channels stacked six levels of four channels per level, for a total of 24 channels. During that first 8 days, very little light is needed as the energy for growth is in the seed itself. The fodder must be harvested by 7-9 days. If left in the channels for longer than 8 days, the foliage begins to yellow from lack of light. With a 24-channel system, 3 channels would be harvested, cleaned and replanted every day. When growing barley fodder, each 12' channel would be planted with about 10 pounds of seed quality barley which has been soaked overnight to help with faster germination. After 8 days the weight of the fodder per channel will be about 70 pounds of fresh fodder. This design allows a grower to stagger production and give livestock fresh fodder every day. In addition, it takes up very little space, approximately 200 square feet.

## The Fodder Machine

The seeds that you select for your hydroponic fodder system must be clean and unbroken seed. They need to be seeds that are meant for growing or “seed” quality and not “feed” quality. If you start with broken seeds, they probably will not germinate and then begin to mold in the system.

One of the most important considerations to starting a fodder growing operation is the availability of the seeds. When you consider that each 12’ channel starts with 10 pounds of seed that means for every rotation you will need 240 pounds of seed. Being able to purchase the seeds during the fall of the year when they are harvested and have a safe, dry location to store them is important. When you are looking for seed quality, make sure that the seeds have not been treated.

Barley is the most common seed used for fodder production because the ratio of seed weight to fodder production is the best about 700 gm of seed to 9 kg of fodder. While barley is the most common it is certainly not the only seed used.

To plant the barley seed, soak them for 5-8 hours and then rinse seed to remove some of the sugars. Spread the seeds about ½” thick on the bottom of the channel, as evenly as possible. The seeds should be watered between 4-6 times per day, long enough for the water to flow from the feed end of the channel to about halfway down the length of the channel. This should take about 2-3 minutes on a 12’ channel from the time the water starts to flow. After the feed is turned off the water will continue to flow to the other end of the channel and drain.

## ANNEXURE-III

### The target sites for grassland rejuvenation and potential yields

Site	Elevation (m)	Green Mass (t/ha)
Goa Marg	3000	14.70
Duksum	2,500	29.00
Dachigam*	1,900	14.00
Kralpathri	2,500	20.50
Dagwan	3,400	14.60
Gaobal*	2,000	10.31
Drobmarg	3,200	10.00

## ANNEXURE-IV

### **Reporting and Periodic Review:**

At the field or village level, the Panchayats will be involved in overseeing the process of implementation. At the district level, reporting and reviewing will be undertaken by Chief Agriculture Officer. At UT level, respective Directors of Agriculture, Dy. Directors supported by other staff shall monitor the progress. The PI will directly submit Quarterly Progress Reports (QPR within 20 days of completion of the quarter. Similarly, the detailed Annual Progress Report (APR) should be sent within two months after the end of the year.

## **29. SUPPORT TO HUMAN RESOURCE FOR TECHNOLOGICAL BACKSTOP FOR SUSTAINABLE AND ACCELERATED TRANSFORMATION OF AGRICULTURE:**

This Programme is aimed to provide

- Government support to education and research of agricultural universities and to attract the young generation towards agricultural education and make effective outcomes
- Make the huge infrastructure capital of farm universities in terms of labs, farms, equipment's etc. more productive and effective through continuous support in terms of contingency grants which can act as fuel to run the infrastructure capital.

**The support has two components:**

1. Vice Chancellor's Flexi grant
2. PG & PhD Student Scholarships

**Vice Chancellors Flexi grant** shall be kept at the disposal of **Vice Chancellors** of two Universities who shall use it to support **Research Contingencies, Purchase or repair and maintenance of Minor Laboratory/Farm Equipment** at different Faculties/Colleges, Research stations and units of the University.

The grant shall **NOT** be used for Civil Works

**PG & PhD Student Scholarships:** All the enrolled PG & PhD students shall be eligible for the Scholarship provided they are not in receipt of ICAR/CSIR/ICMR Scholarship/Fellowships or any other sort of Research Funding.