

# Uttarakhand Decentralized Watershed Development II Project (GRAMYA II)



## AGRIBUSINESS STRATEGY



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## **AGRIBUSINESS STRATEGY**

### **1. BACKGROUND**

Uttarakhand is a mountain state where the proportion of households below the poverty line is high at 39.6 percent, with rural poverty at 40.8 percent, and urban poverty at 39.8 percent. Lessons from initiatives to develop the rural economy in the hills to improve market access include the following:

- ❖ Infrastructure development to improve all-weather access and provide access to regions that grow produce that has a demand in the market.
- ❖ Cluster approach allows to function collectively will lower production costs, and make delivery of inputs and movement of produce more economic.
- ❖ Need to raise the scale of production to be competitively marketable.
- ❖ Collective marketing needs to be planned carefully.
- ❖ Skills need to be improved to manage produce handling and marketing.
- ❖ Efforts should first be directed at encouraging production and saturating local markets before moving to external markets. This will also help educate farmers on aspects of dealing with the market system.

Uttarakhand is a major supplier of off-season vegetables (OSV) to the north Indian market and farmers have adapted their cropping calendars to market demand. Tomato, potato and peas, in particular, are doing well, while other OSVs grown on a large scale are cauliflower, capsicum, cabbage and beans. This development has been supported by a number of programmes and agencies forming farmers' producer groups. These producer groups now supply significant volumes of tomatoes and other produce to Delhi and other out of state mandis, "Mother Dairy" etc. This practice of tapping niche marketing agencies was also adapted in UDWDP-I.

## **Project Objective**

To increase the efficiency of natural resource use and productivity of rain-fed agriculture by participating communities in selected micro-watersheds of the State of Uttarakhand.

## **PROJECT COMPONENTS**

### **1. Social Mobilization and Participatory Watershed Planning**

- Social Mobilization
- Preparation of GPWDP/MWS Plans

### **2. Watershed Treatment and Rain-fed Area Development**

#### **a. Watershed Treatment and Source Sustainability**

- Watershed Treatment
- NRM Demonstrations

#### **b. Rain-fed Agriculture Development**

- Agriculture and Horticulture
- Animal Husbandry
- Fodder Production

### **3. Enhancing Livelihood Opportunities**

- a. Agribusiness Support
- b. Support for Vulnerable Groups
- c. Consolidation of Gramya I Activities

### **4. Knowledge Management and Project Coordination**

#### **a. Knowledge Management**

- Capacity Building of Stakeholders
- Centre of Excellence for Watershed Management
- Information Education and Communication
- Monitoring, Evaluation and Learning

#### **b. Project Coordination**

## **Project Area**

The project will be operational within the state of Uttarakhand. Total project area will cover about 2.638 lakh hectare of land spread in 8 districts and 18 development blocks. About 509 GP with a number of 55605 HH and approx 3.18 lakh population will be benefited by the Project outcome.

## **2. KEY FOCUS AREAS**

### **2.1. OFF SEASON VEGETABLES**

With its climatic advantages, the state is a major producer of off-season vegetables and this sector can be further scaled up. Hill regions have large growing areas devoted to production of tomatoes, potatoes, peas, cabbage, cauliflower, capsicum, and beans during summers. Vegetables grown in the off-season within the state have a huge demand in urban North Indian markets, New Delhi and Chandigarh in particular. This sector holds the largest potential in terms of engaging substantial number of project beneficiaries.

Private brokers/wholesalers known as "*araies*", usually holding a Commission Agent licence at a local mandi, have been traditionally providing inputs to farmers such as seeds and fertilisers, or making cash advances, in return for a commitment from producers to sell the vegetables back to them. It is the trader who decides on the quality and value of the produce delivered by farmer and the system is not transparent with little bargaining power in hands of farmers who are in debt to the trader.

With off-season vegetables being sold at premium prices, the margin available allows inefficiencies in production and transaction costs. There are opportunities to improve production methods, increase yields and so reduce the unit cost of production, improving returns to farmers. Not only will this help increase coverage area, but the higher scale will result in lowered transportation and logistics costs as well.

The following SWOT analysis sums up key issues surrounding the off season vegetables sector in Uttarakhand State:

## **STRENGTHS**

- Climate suited for growing “off-season” vegetables
- Most crops grown traditionally and are familiar to the local community
- In local markets also demand of vegetables.
- Close to huge market in north India with marketing channels established

## **WEAKNESSES**

- Land holdings are small and fragmented
- Lack of irrigation
- Largely traditional farming methods are practiced and productivity is low
- Lack of capacity building and credit infusion resulting in small scale of activity
- Generally poor road connectivity, often narrow (unsuitable for large trucks)
- Mobile phone coverage poor – limits contact with buyers.
- Wild animals damage crops

## **OPPORTUNITIES**

- Availability of other areas/regions that can compete for exotics, herbs & off-season vegetables
- Large local requirement for tourists visiting the state
- Ability to grow “exotics” like broccoli, red cabbage, asparagus, etc. can open higher end of the market
- Good potential to raise productivity, and optimise operations through adoption of collective approaches
- Road connectivity is improving.
- Regulations have been amended to allow the agri-business sector to buy directly from producers. Contract marketing will be exempt from mandi tax.
- Government to create more farmers' markets for direct sales to local consumers.
- Scope to improve marketing chain, and to provide farmers with alternative sources of credit and inputs, so breaking hold of Commission Agents.

## THREATS

- Many households not interested in cash crops as their livelihoods are based on migration to jobs away from the hills in the plains where better infrastructure services are available
- Better established producers in Himachal Pradesh compete in the off-season vegetable market for much of the season.
- In recent years OSV have been damaged by extreme weather.

**Proposed Key Interventions:** The focus will be on the following crops that have already achieved a significant scale: (i) potato, (ii) tomato, (iii) peas, (iv) capsicum, (v) cabbage, (vi) cauliflower, and (vii) French beans. Efforts will be made to identify other produce where opportunities exist and that can be grown locally.

## 2.2. SPICES

India is the world's biggest producer of spices, 5.3 million tonne grown on 3 million ha in 2008/09. The spices that are predominantly grown in Uttarakhand are also the most widely grown ones in India. To put Uttarakhand production in perspective, it represents about 0.2% of India's area planted to spices and 1% of the country's total production. Uttarakhand has a good opportunity on the local market which it needs to fully satisfy with the crops that it already grows, but when this market has been saturated, it needs a strategic plan. In many instances, farmers could be urged to grow higher value spices or, alternatively, they could look for markets outside of the State. Another alternative could be to invest into further processing – into oleoresins, which obviously have the advantage that they are much higher value and have export opportunities.

The following SWOT analysis sums up key issues:

## STRENGTHS

- Spice crops are familiar to growers who understand its farming.
- Spices can be grown to fill gaps in terms of time and growing space.

- Wild animals do not attack spice crops.
- Large consumption among households on regular basis in primary and processed form.
- Can lend itself to value addition through simple low cost technology at village level.
- Clean image of state appeals to consumers,

#### **WEAKNESSES**

- No special advantage compared to other regions other than being naturally organic.
- Grown on a limited scale compared to OSV and fruit.
- Lack of irrigation constraints yield of garlic.
- Consumers suspect ground spices have been adulterated unless they are from a reputable brand. This may limit local level value addition.

#### **OPPORTUNITIES**

- Local demand for spices in primary and processed form.
- Advantage offered by short cropping season as a cash crop.
- Off-season opportunity may exist with some crops, ginger being the most remunerative.
- Opportunity in external markets for organic spices
- Possibility of growing new, higher value spice crops, further processing into oleoresins

#### **THREATS**

- Widespread cultivation of ginger may damage soil structure
- Need improved systems for seed storage to avoid risk of an overall decline in quality of produce.
- Competition with larger players, selling branded products

#### **KEY INTERVENTIONS**

Based on local preferences, the value added forms that are possible from spices will be looked to for pursuit as feasible; (i) ginger – dried fingers, dried powder (*saunth*), paste, oleo resin, (ii) garlic – dried pods and paste, (iii) chilly – whole dried (red), powdered, and

paste, (iv) turmeric – dried fingers, slices, powdered, and paste. Coriander is largely sold in its green form though coriander seeds (dried) also have a demand.

### **3. PROPOSED INTERVENTIONS FOR AGRIBUSINESS PROGRAMME**

Based on the analysis of issues, and considering the limited risk-bearing capacity of the project's clients, the following "interventions" are suggested (classified into immediate, short and long term feasibility prospects):

#### **Immediate Proposed Interventions**

- Testing and adaptation of new and environmentally friendly technologies.
- Promotion of off-season vegetable crops (competitive advantage) for household's consumption and sale.
- Support to entrepreneurs engaged in production, processing and marketing of high-value cash crops.
- Training and development support for value-added enterprises.
- Sub-sector Analysis of Potential identified sector.
- Development and implementation of sub sector strategies on farm demonstrations at G.P. level for agriculture and vegetable crops followed by adoption support for two years.
- Identification of farmers and after proper training, taking seed production of rainfed crops in pockets.
- Support to group formation/organization (FIGs) to take up off season vegetable and spices production.

#### **Short-term Proposed Interventions**

- Formation of Farmer interest groups.
- Promotion of protected cultivation of high value crop.
- Promotion of market-oriented production system.
- Use of locally available skills and technology.
- Identification of technologies that can be adapted for the establishment of agro-processing enterprises.



- Training and development support for value-added and micro processing enterprises.
- Development and strengthening of marketing linkages with special emphasis on distance marketing and open market.
- Facilitation of construction of marketing infrastructure and grading, weighing and sorting facilities.
- Capacity-building of Farmers groups and institutionalisation of commodity based farmers groups.

### **Long-term Proposed Interventions**

- Formation of Farmers Associations
- Market rural infrastructure support
- Policy Feedback between the communities and State for sub sector development
- Support to farmer-owned and controlled self reliant Agro-forestry Service Cooperatives or appropriate Farmers' association

## **4. IMPLEMENTATION STRATEGY**

### **4.1 ASSUMPTIONS AND PRINCIPLES**

- Pockets with cluster approach will be adopted rather than spreading the resources to larger areas.
- Rain fed area of the project needs to be addressed properly for increasing the productivity of land. Pulses and oilseeds fetch good price. Minor millets like finger millets, Barnyard millet (Jhingora/ madira), have nutritional advantage. Prevalent climatic conditions are congenial for harnessing the economic potential of pulses and minor millets.
- Formation and strengthening of economic farmers groups for delivering the project services at the village level.
- Promote community owned and managed irrigation system parallel to medium to small scale system.
- Strengthen institutional capacity of community-based organizations so as to make them more responsive and participatory.
- Promote and transfer new and environmentally friendly technologies.
- Support to plan market led cash crops production.
- On Farm Demonstrations (Method demonstration and Impact demonstration) can be a strong means to convince farmers, leading to wider and sustainable adaptability.
- Maximising the know-how and skills of human resources through capacity building.
- Collaboration with other institutions (NGOs, private sector, government) to maximize utilization of project resources and promote long-term sustainability of interventions
- Consideration of profitability, efficiency and sustainability in the planning of all activities.

### **4.2 TECHNICAL AND MARKETING SUPPORT:**

Agri-business Support Agencies (NGOs) will be hired at divisional level, following World Bank Procurement guideline to assist divisions in agribusiness programme.

Agri-business Support Agencies will be responsible for:

## **A. Institutional Strengthening**

- Identification of farmers for demonstration.
- Follow up for adaptation of demonstrated interventions
- Identification of potential farmers for replication and adaptation of demonstrated interventions for providing input support.
- Formation of FIG at G.P. level from above identified farmers.
- Formation of Farmers Federation at cluster level and there legalization.
- Capacity building and skill upliftment of FIG and FF's with respect to production and market intelligence.
- Linkage of FIG/ FF with Financial institutions and address to sustainability issues.

## **B. Crop Planning**

- Baseline survey of each FIG/ G.P. for existing land use.
- Agency will make crop plan for each FIG/ G.P. for both irrigated as well as un irrigated area.
- Assessment of potential surplus as per the proposed crop plan.

## **C. Input Support Plan**

- Input support plan based on the proposed crop plan for assessment of input support to be provided by the project to individual farmer/ FIG for demonstration and adaptation of productive techniques.

## **D. Market linkages**

- Base line survey for existing scenario.
- Prior identification of possible market linkages for potential surplus as per the Proposed crop plan.
- Identification of possibilities of value addition of surplus product (as per the proposed crop plan).
- Develop market linkage of value added product and value chain.

#### **E. Infra structure for Market support**

- Need assessment and identification of satellite collection point at cluster level.
- Need assessment and identification of nodal collection point at federation level.
- Assessment of input support for post harvest handling, strengthening of collection points and value addition centers.

#### **F. Sustainability Issues**

- Addressing sustainability issues with regard to institutions formed (FIG, FF,Co operative, producer company etc.)
- Addressing sustainability issues with regard to infra structure/ Assets created (collection centres, Value addition units etc.)

#### **G. Tracking Agribusiness Outcome**

Tracking of agribusiness outcome, for suggesting changes in existing crop plan of G.P/ FIG, post harvest handling as per existing market linkage and demand.

Initially, the project will ensure that constraints impeding cash crop development are given priority. Rain water harvesting *in situ* to increase moisture regime, cultural practices be done to facilitate maximum utilization of rainwater for critical stage of crop growth.

Those irrigation schemes should be prioritized in the GPWDP which favors high value crop production. Bottlenecks will be addressed through small irrigation development and improved access to agricultural inputs and technology through upgraded extension services. There is significant potential to improve the irrigation facilities in several areas. The project can promote participatory irrigation management focusing on systems in which community and user participation can be maximized. New and environmentally sustainable irrigation techniques (e.g. Hydram scheme) should receive special project support. The project will support the farmers and groups initiatives to create collection centers, common facility center and marketing infrastructure.

### **4.3 IMPROVED AGRICULTURAL PRODUCTIVITY AT THE HOUSEHOLD LEVEL**

Assessments indicate that there are significant differences in the agricultural and economic potential of villages located in mid-hills and high mountains. Project activities will be customized to local conditions. Rainfed agriculture will be promoted by adaptation of cultural practices, especially suited to rain fed agriculture and promotion of traditional crop varieties and exploring input response to them.

Key crops found in the lower and middle hills are: rice, wheat, maize, millet as well as potatoes and vegetables. The project will promote improved access to better varieties of cash crops and support the development of livestock, a low risk economic activity.

- Adaptation of cultural practices, especially suited to rain fed agriculture;
- To promote traditional crop varieties and exploring input response to them.

### **4.4 DIVERSIFICATION OF CROPS AT THE HOUSEHOLD LEVEL**

- Crop selection, would be as per the available soil moisture regime (climatic suitability and economic feasibility);
- Traditional crops like horsegram (gahat), Bhatt (black soyabean), Rajma, Amaranthus (Ramdana), are to be promoted along with improved cultural practices;
- Cultivation of Minor millets like- Ragi, Jhingora/Madira, Maduwa, to be promoted for commercial exploitation;
- Maize being a short duration, hardy fodder crop, will be emphasized upon.
- The general practice of growing food grain crops need to be changed and more remunerative crops (off season vegetable, spices, NTFP and seed production) having comparative advantages should be promoted immediately.
- The project will analyze promising economic opportunities (potential sectors) and prepare appropriate strategies for the implementation.
- Awareness will be created about economics of various crops through farmers training. At a later stage (Year 3 to 5), project will support larger undertakings such as agro-processing ventures by individuals or groups.

#### **4.5 SELECTION AND TESTING OF TECHNOLOGICAL INNOVATION**

Selection criteria for technological innovations are based on the tenet that the improved technologies introduced should increase cash crop production and be environmentally sustainable. The project will introduce new and tested technologies in the following areas as recommended by research institutions (ICAR, KVK, and Agriculture Universities etc.):

- Crops and available varieties
- Improved breeds
- Nursery Management in Poly tunnel
- Vermi composting
- Irrigation And Water Use
- Yearly Crop Calendar
- Integrated Pest Management
- Integrated Soil Fertility Management
- Harvesting for Quality Produce
- Post Harvest handling
- Market Information Systems
- Marketing Management

#### **4.6 DISSEMINATION OF IMPROVED AGRICULTURAL PRACTICES/ EXTENSION SERVICES**

Extension services are generally understaffed and under-resourced for the level of effort expected by farmers from them. In order to expand outreach capacity and increase the extent of beneficiaries, the project will support training and workshops. Project staff will disseminate improved technologies through Producer. Project will assist NGO partners (ABSO) in elaborating a comprehensive set of training materials and manuals. Subject specialists will assist in elaborating the training materials. Project will develop a comprehensive training program to help ABSO staff promote on-farm and off-farm income-generating strategies.

Private extension system can be established to link the producers with processors through contract farming on one side and marketing aspect on the other side.

#### **4.7 PROMOTE THE FORMATION OF FARMERS' GROUPS AND DEVELOPMENT OF COMMUNITY- BASED FARMERS' ASSOCIATIONS**

Farmers in the hills of Project areas have limited access to the larger market network for their products. To address the existing constraints and to leverage their access to production and marketing services, the project supports farmers to organize into Producer Groups (FIGs).

Households at G.P. level will be organized into informal FIGs, with 10 - 30 members each. The project will provide technical inputs and other types of support to the FIGs and its governing body at different stages of group development. ABSO staff will facilitate and help the FIG members to plan production and marketing of cash crops. The Producer Groups will remain informal and will be the focal point for the delivery of extension services to their members.

The operation and successful management of FIGs leads to the need to form a Farmers' federation in order to expand market windows (through viable scale) and protect the interest of small groups. In this context, factors concerning physical and administrative boundaries, production pockets, market outlets and market location become the basis for the formation of the Farmers' federations.

The project will provide technical assistance and managerial support to the Executive Committees of FF's for registration, record keeping and business planning. The project intervention will contribute to building the institutional capacity (organisational and financial) of FFs to provide production planning, input management, and quality assurance and marketing services to members at competitive prices.

#### **4.8 IMPROVING POST HARVESTING HANDLINGS AND MARKETING CAPABILITIES**

Communities lack post-harvest handlings and marketing skills and knowledge. Agribusiness strategy identified post harvest processing and value adding as an income generating activity

with strong potential beyond the cultivation/collection phase. The project will support FIGs and FFs for marketing management by:

- Providing technical post harvest handling support,
- Analyze the economic and technical benefits of different potential options of micro processing/ value addition and support in the establishment of unit
- Supporting in the establishment of marketing infrastructure
- Establishment of satellite collection points for collecting surplus of grains, pulses and millets;
- Promotion of female SHGs in drying, cleaning, grading, grinding, nutritional fortification of flour.
- Commercial exploitation of micro millets in baby food/confectionery.
- Capacity building in norms and quality control
- Brand promotion
- Establishing the market information system, E - enabled market information centre may be established to facilitate dissemination of recent market trends, opportunities for new product, packaging information, government schemes etc
- Support in the establishment of partnerships with input suppliers, market operators and agro-processing companies
- Assisting the Producer Groups and FA use the information.

#### **4.9 Gender and Inclusion**

Project will ensure the equal participation of men, women and disadvantaged communities in all activities such as training, exposure visit,, institution building etc. Woman drudgery will be reduced by making Fuel, fodder and water available in vicinity and by way of mechanization wherever feasible..



## 5. POTENTIAL OPTIONS

### 5.1 Selection of product (vegetable, spices, NTFP)

Comparison of harvesting season of vegetables/ fruits in project area viz.-a-viz. plain areas

Table: Harvesting season of Fruits and vegetable in the project area

Product	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Apple												
Pear												
Citrus												
Green pea												
Cabbage												
Cauliflower												
Capsicum												
French bean												
Onion												
Tomato												
Potato												
Ginger												

Table: Harvesting season of Fruits and vegetable in the plain areas

Product	Jan	Feb	March	Apr	May	June	July	August	Sep	Oct	Nov	Dec
Green pea												
Cabbage												
Cauliflower												
Capsicum												
French												

Product	Jan	Feb	March	Apr	May	June	July	August	Sep	Oct	Nov	Dec
bean												
Onion												
Tomato												
Potato												
Ginger												

The initial selection criteria will be based that for sustaining a productive activity the activity must be driven by real market opportunities and profit incentives. Project will focus on high value cash crops having comparative advantages (with plain area as shown in the table) and assured market initially. Once the FIG/ FA are capable to efficiently manage the production and marketing activities then they can expand to other crop.

Without predetermining the options to be selected by stakeholders, findings from the visit to project area and interaction with various stakeholder (Mother Dairy, FIG, Traders, NGOs etc) consultants suggest that the following options are viable initially:

	High (1600 - 2200 meter)	Medium (1200 - 1600 meter)	Low (below 1200m)
In Summer -Sowing/ Planting: In January - August (in case of nursery sowing use poly tunnel) - Harvesting and marketing in May to October	Capsicum (hybrid), Pea Tomato (hybrid), French bean (fibre less), Cabbage	Capsicum (hybrid), Tomato (hybrid), French bean (fibre less), Cabbage, Arbi	French bean, Capsicum, Tomato
Seed production		Wheat, pulse*	
Winter (October - April)	Pea	Pea, Cabbage	Pea, Cabbage
NTFP and Spices Planting in April to July		Ginger	Ginger

\*Through buy back agreement with TDC

## **5.2 Production Area for Off seasonal vegetables, Spices and Fruits**

- The area is irrigated or is irrigable with support from project's irrigation program
- FIGs members are willing to allocate their land for the production of off season vegetable, spices, seed etc
- Area should be within 4 hour of walking distance from proposed collection centre.

### **Production Pockets for Seeds Production**

Seed production programme will be undertaken for high yielding rainfed agriculture crops with seed support from Research institutes (VPKAS, GBPUA&T etc.) and seed certification from seed certification agency and assured buy back arrangements from Tarai Seed Corporation. This on one hand increase farmer's income and on other hand will add to self sufficiency and availability of quality high yielding seeds for the project area. For this farmers will be earmarked and proper orientation and technical training will be imparted along with suitable exposure visits by concerned agencies.

### **Production Pockets for Fruits**

- The pocket will be identified by the availability of various matured potential fruit tree like Citrus, Pear, Mango etc
- FIGs members are willing to market collectively
- Area should be within 4 hour of walking distance from proposed collection centre

## **5.3 Marketing of the produce**

Table shows that supply of selected vegetable is low during May/ June to September. The marketing strategy should be to supply the right quantity of vegetable in the right time and at the right market. A market study tour may be conducted of FIG to know the market dynamics, supply, demand and consumer preference.

During low supply of vegetable and fruit in project area local market will be exploited. However, during bulk supply regional (Vikasnagar, Dehradun) and institutional market (Mother Dairy) will be approached.

For initially Mother Dairy is the best option to build the capacity. Later on FIG/FA learn from the experiences and react accordingly with more option.

## 5.4 Food processing and value adding options

Food processing and value adding as an income generating activity is having strong potential beyond the cultivation/collection phase. As such, the prospects and viability of food processing and value addition will be further analyzed with regard to economic and technical benefits of following options.

	Processing Options	Final Product	Raw Product
1	Brine preservation	Bottled/ canned	Pea
2	Dehydration	Dry	Pea, Ginger
3	Dry grinding	Powder	Ginger, Cumin, Coriender, Chili, Turmeric, Tejpat, Ritha, wild
4	Wet grinding	Paste	Ginger, Garlic
5	Distillation	Oil	Ginger, Tejpat, Geranium,
6	Squash making	Squash	Orange, Malta, Rhododendron
7	Wet preservation	Ketchup, Sauces, Prickle	Tomato, Mango, Ginger, Chili, Carrot, Garlic, Citrus, Aonla
8	Chip Making	Chips	Potato, Banana
9	Drying, grading, Grinding, Packing of traditional	Packed Product	Madua flour, Packed Sawa, Gahat seed, Bhatt (black), Urd,

## 6. PERSPECTIVE PLAN FOR AGRIBUSINESS

Activities	Ist year	IInd year	IIIrd year
Training of Service Provider/ Staff Training of trainer on basic marketing, Agribusiness principal and strategies Market issues and strategies for small farmers Farmers Institution development Training on market sub sector analysis and value chain approach Training on monitoring and reporting system			
Community Mobilization Awareness Raising meeting in villages FIG target Inventories of existing FIGs			
FIG formation and development Training of villagers on FIG promotion and			

Activities	Ist year	IInd year	IIIrd year
development with a particular focus on increased capacity of seizing income generating opportunities Formation meeting and election of management board Meeting and technical assistance on preparation of bylaws, policies etc			
Promotion of improved production technologies for the potential high value crops (OSV, NTFP, Spices etc), demonstration	■	■	
Study tours of areas/ research institutes where application of new technologies have been successful		■	
FAs Development and Management FIG federation, training on concept, by laws, Vision/ mission building, registration Management training to board of directors with a particular focusing on decision making process, legal environment, Annual General assembly's (AGM) Training on Accounting system and MIS Follow up of board meeting Training on book keeping Training on Business plan Training on marketing management		■	■
Exposure visit in the India to see the the successful FA		■	■
Assessment of needs including infrastructure of FAs for the supply of farm input as a service to their members		■	
Support to FA in the establishment of farm input supply infrastructure		■	
Assessment of needs including infrastructure of FAs for the marketing services to their members		■	
Support to FA in the establishment of marketing infrastructure		■	
Identification of agro processing ventures and support for development of business plans Selection of areas and individuals/ groups interested in agro processing activities Meeting cum workshop to assist group/individual in development of action/ business plans for agro processing Project support for finalizing business plans and fund mobilization		■	■

Activities	Ist year	IInd year	IIIrd year
Support in implementation of agro processing operations Support in procurement and installation of facilities Support in the management of the operations including establishment of accounting system Support in packaging, quality control and marketing Evaluation and enterprise planning		■	■
Sub Sector and value chain analysis of potential sectors Conduct Study Production and submission of reports	■		
Development of Sub sector Strategies Sub sector selection Sub sector strategy development Development of strategic action plan for targeted sub sector Develop partnerships		■	
Sub Sector strategy implementation Task to be determined on the basis of results		■	■
Exposure visit to various market		■	■
Identify and support Norms and quality control program for targeted sub sector			■
Brand Creation and promotion			■

## 7. KEY ISSUES TO BE ADDRESSED ( for waiver in World Bank Procurement guidelines):

### Seeds for Demonstration:

To carry out demonstrations in agriculture crop for rainfed areas, the availability of certified seeds may be constraints. The condition aggravates, when the proposed crop is traditional, for example: Horse gram (Gahath), Black soyabean (Bhatt), Local Rajma. The varieties if available for these crops, with Research Institutes like VPKAS will be of TL (Truthfully labeled) type. Seeds of some varieties are indigenous and niche based cultivated by local farmers, for example Rajma of Munshyari and Harshil.

For area expansion of such crops policy level decision to allow procurement of TL seeds for which Certified seed is not available and TL seed is proven success can be thought of.

For crops which are niche specific and need for expansion of area is felt, the provision of purchase of seed from local farmer for demonstration needs to be made.

### **Seed Production Programme:**

To assure availability of quality seed materials and for better returns to farmers by getting into seed production programme the need for backward linkage (availability of seed for multiplication) and forward linkage (seed certification and assured buy back arrangements) needs to be addressed. This will ensure sustainable cultivation of these crops in project area. The seeds may be procured from Govt. Institutions/ Agencies like VPKAS, GBPUAT, TDC etc.

### **Availability of Fertilizer Input**

Taking rain fed crop year after year, without adding nutrient in form of fertilizer (Compost has its own limitation with regard to low nutrient content and large volume) will eventually scavenge soil of its fertility. Fertilizer advantage is yet to be exploited in rain fed crops. For promotion of the same, Crop demonstration will be performed as a package of practice as Integrated Crop Management demonstration with fertilizer as an integrated component.

Availability of fertilizer is an important concern in hills. Procurement of fertilizers from existing Primary Agriculture Co operative Societies (PACS) in the region should be permitted for Demonstration and Input support For farmer adoption component.

## **CONSOLIDATION OF VALUE ADDITION CENTERS AND FEDERATIONS OF GRAMYA PHASE-I**

The Uttarakhand Decentralized Watershed Development Project (UDWDP), development block and the project area is one of the most economically backward and poor in natural resources in Uttarakhand. Under the Project's components of "Enhancing Livelihood Opportunities" farmers' groups were formed and these groups were brought under Farmers' federation.

This sub component will take care of the sustenance and requirement of all those institutions which were developed during UDWDP Phase -I. The project adopted two types of agribusiness activities in GRAMYA Phase - I, one was Marketing of raw surplus (Vegetables mainly) and the other was Marketing of Products after value addition (value added Products). Different activities would be adopted to support different cooperative/ federation, assessing their need and nature of operation. The activities to enhance their capacity and for Value addition and marketing need focus on some areas given as below-

### **1. Training and exposure visit**

Most of the federation started their value addition and marketing activities in the last two years of the project. The majority of the Federations were also registered in Self Reliant Cooperative Act- 2003 in the last year of the project. Value addition and marketing is now governed by Food Safety Act of the state. Previously it was according to FPO/AGMRK rules. So the cooperatives still need strong training related to following different aspects.

- Self Reliant Cooperative Act- 2003 of Uttarakhand.
- Cooperatives still need better understanding of State Food Safety Act-2011 regarding processing, value addition and marketing activities.
- Cooperative strongly needs to know about the taxation system of state and interstate business.
- Knowledge about different institution and department who can support cooperatives in the field of institutional strengthening, marketing, technical knowledge enhancement, accounting and book-keeping, and financing for future up scaling.
- Exposure visits of different institution and cooperatives successfully working in other states.

### **2. Technical support-**

It is proposed to engage Agri-business Support organization (ABSOS) to develop market linkages and providing technical support for three years period. The ABSOS would perform the following tasks:

- Technical guidance to the farmers
- Identify potential niche market opportunities and development of strong market based supply chain;



- Establish links with private sector entrepreneurs who could help in exploiting the market potential;

### **3. Input support for improved agricultural practices and value addition**

The project will provide agribusiness input support to the Farmers Federations assessing their need and capability. The Input would include quality seed, bio-pesticide, bio-fertilizers, bio-compost, poly-house, poly tunnel, plant protection equipment, packaging material, processing equipments, plastic crates for packaging and transportation, weighting machines etc.

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