

World Bank Funded

# Uttarakhand Decentralized Watershed Development Project -II



## UPDATED STATUS



OCTOBER 2019



Watershed Management Directorate, Uttarakhand  
Dehradun

wmd-ua@nic.in <http://wmduk.gov.in>

## **CONTENTS**

EXECUTIVE SUMMARY .....	3
CHAPTER -1 .....	7
ABOUT THE PROJECT.....	7
1.1. BACKGROUND .....	7
1.2. PROJECT OBJECTIVE .....	7
1.3. PROJECT BENEFICIARIES.....	8
1.4. PROJECT AREA .....	9
DETAIL OF PROJECT AREA SELECTED FOR UDWDP – II.....	10
1.5. PROJECT PERIOD.....	11
1.6. PROJECT COST .....	11
1.7. PROJECT COMPONENTS.....	11
1.8. PROJECT HIGHLIGHTS.....	13
1.9. EXPECTED OUTCOME INDICATORS .....	14
1.10. ENVIRONMENTAL AND SOCIAL SAFEGUARDS THE PROJECT .....	14
1.11. MONITORING IN THE PROJECT .....	15
1.12. AUDIT ARRANGEMENTS IN THE PROJECT .....	16
1.13. STATUTORY COMMITTEES IN THE PROJECT .....	16
1.14. LEGAL COVENANTS APPLICABLE TO THE PROJECT .....	16
1.15. PROJECT PREPARATION - KEY DATES.....	17
1.16. PROJECT MANUALS .....	17
CHAPTER -2 .....	18
FINANCIAL PROFILE OF THE PROJECT (JULY 2019) .....	18
2.1. BUDGET PROVISION AND STATUS OF EXPENDITURE FY 2019-20 .....	18
2.2. FINANCIAL PROGRESS (Rs. in Cr.).....	18
2.3. COMPONENT WISE FINANCIAL PROGRESS (Rs. in Cr,) .....	18
2.4. ESTIMATED PROJECTED EXPENDITURE FOR THE FINANCIAL YEAR 2019-20.....	19
2.5. ANNUAL WORK PLAN FOR 2019-20 .....	19
2.6. PROJECT DISBURSEMENT PROFILE .....	19
2.7. CUMULATIVE DISBURSEMENT STATUS .....	20
2.8. UPDATED STATUS OF REIMBURSEMENT .....	20
2.9. PROJECT DISBURSEMENT TRACKING.....	21
CHAPTER - 3 .....	22
INNOVATIVE ACTIVITIES AND THRUST AREAS UNDER PROJECT .....	22
3.1.1. Solar Irrigation System.....	22

3.1.2. Mass Artificial Insemination in clusters with Female Sorted Sexed Semen Technology	22
3.1.3. Certified Seed Production in rainfed areas .....	24
3.1.4. Conversion of Fellow lands into cultivable lands.....	25
3.2.1. Water Source Sustainability .....	26
3.2.1. Agribusiness Growth Centres .....	27
CHAPTER -4 .....	28
PROJECT COMPONENT WISE PHYSICAL ACHIEVEMENTS .....	28
4.1. Social Mobilization and Participatory Watershed Planning.....	28
4.1.1. Preparation of GPWDPs .....	28
4.1.2. Preparation of MWS Plans .....	28
4.1.3. Status of procurement of major consultancies .....	29
4.1.4. Status of Labor Man days generated .....	30
4.2. Watershed Treatment and Rainfed Area Development .....	30
4.2.a Sub Component - Watershed Treatment and Water Source Sustainability .....	30
4.2.b. Sub Component -Rainfed Area Development .....	37
4.3. Enhancing Livelihood Opportunities.....	39
4.3.aSub Component - Agribusiness Support.....	39
4.3.bSub Component - Support for Vulnerable Groups .....	40
4.3.cSub-Component - Consolidation of Gramya-I activities .....	40
4.4 Knowledge Management and Project Coordination.....	41
4.4.aSub-component -Knowledge Management .....	41
3.4.b Sub component - Project Coordination.....	42
ANNEXURE -1.....	43
UPDATED PROJECT PROGRESS V/S TIMELINE .....	43
ANNEXURE -2.....	44
KEY PERFORMANCE INDICATORS (KPIS) AS PER PROJECT OUTCOME INDICATORS .....	44
ANNEXURE -3.....	47
STATUS OF COMPLIANCE OF AIDE-MEMOIRE IMPLEMENTATION REVIEW AND SUPPORT MISSION (OCTOBER 2018) .....	47
ANNEXURE -4.....	48
SUCCESS STORIES .....	48
CONVERGENCE IN ANIMAL HUSBANDRY ACTIVITIES.....	51
ANNEXURE -5.....	54
DETAILS OF UDWDP PHASE- II PROJECT AREA (LIST OF GRAM PANCHAYATS) .....	54

## **EXECUTIVE SUMMARY**

---

### **THE PROJECT**

With an objective to increase the efficiency of natural resource use and productivity of rainfed agriculture by participating communities in selected micro watersheds of the State, the Uttarakhand Decentralized Watershed Development Project is implementing in 525 Gram Panchayats in 18 Developmental Blocks, of 8 hilly Districts in Uttarakhand. The Project components are: (1) Social Mobilization and Participatory Watershed Planning; (2) Watershed Treatment and Rainfed Area Development; (3) Enhanced Livelihood Opportunities; and (4) Knowledge Management and Project Coordination.

PROJECT AREA	: 82 MWS (263837 ha.)
GRAM PANCHAYATS	: 525 (153318.77 ha)
ARABLE AREA (Baseline)	: 39522 ha (Irrigated- 5246.386 ha, Un-irrigated - 34275.917 ha)
DEVELOPMENT BLOCKS	: 18
DISTRICTS	: Uttarkashi, Dehradun, Tehri, Pauri, Rudraprayag, Almora, Pithoragarh, Bageshwar
PROJECT PERIOD	: 2014 to 2021 (Effective since 15 <sup>th</sup> July 2014)

### **HIGHLIGHTS OF THE PROJECT**

- Implementing through community driven decentralized development approach and designed through inclusion of learning from UDWDP Phase-I.
- In compliance with the 73<sup>rd</sup> constitutional amendment adequate financial and administrative autonomy is provided to GPs.
- Participatory Monitoring and Evaluation (PME) at GP level as a tool for social audit and transparency.
- Sustainable institutional arrangement and assets maintenance plans.

### **INSTITUTIONAL ARRANGEMENTS**

#### **FIELD OFFICES UNDER WATERSHED MANAGEMENT DIRECTORATE**

Six Divisional offices and one PMU unit headed by Deputy Project Directors under two regional Project Director's offices i.e. Garhwal and Kumaunare functional since July 2014.

## STATUS OF PROCUREMENT OF MAJOR CONSULTANCIES

Hiring of all major consultancies i.e. PNGO Rudraprayag, FNGO Kumaon and Garhwal, M&E and Hydrology Consultancies, Internal Auditor and Six Agri Business Support Organizations are being finalized and all are in place.

## ACHIEVEMENTS

- 525 GPWDPs have been prepared and are being implemented.
- 525 WWMCs have been formed
- 525 Account Assistant and 1057 Village Motivators are in place in Gram Panchayats and Revenue Villages.
- 67 Micro Watershed Plans have been prepared.
- 1,367 FIGs have been formed by constituting 15,321 farmers of the project area.
- 16 Farmer Federations (FFs) have been formed, constituting 577 FIGs in 8 project divisions.
- 7 Agribusiness Growth Centres have been approved by State Govt. and construction is under progress.
- 4013 individual and 570 group IGA benefited a total of 7,046 vulnerable households.
- 1,484 water sources have been treated.6295 existing Tal/ Khal and 110 Naulas renovated.
- 11 Solar Water Lifting Pumps contributing to increase approx. 193,000 lt net water holding capacity and providing irrigation facilities in 144 ha gross rainfed area.
- Water holding capacity increased;
  - through different storage structures –49,273 cum for irrigation.
  - through dugout ponds and other percolation structures -5,37,137 cum, impacting soil moisture regime in rainfed areas.
- Gross increase in irrigated area – 6,356 ha
- A total of 39,59,813 man days have been generated through labor component under project activities.

## PHYSICAL PROGRESS UNDER MAJOR ACTIVITIES DURING FY TILL SEPTEMBER 2019

### Demonstrations

- |   |       |     |
|---|-------|-----|
| ▪ Demonstration of water conservation through Village Pond  | 97    | No. |
| ▪ Demonstration of high yielding Agriculture crop (0.2 ha.) | 18678 | No. |
| ▪ Demonstration of high yielding Vegetable crop (0.08 ha.)  | 27013 | No. |
| ▪ Seeds and Seedlings /High value crop demonstration        | 1062  | Ha. |

### Plantations

- |  |      |     |
|--|------|-----|
| ▪ Orchard Development (250 plant/ha.)    | 4045 | Ha. |
| ▪ Forage row Plantation (Ha.)            | 154  | Ha. |
| ▪ Forestry Plantation (Ha.)              | 4327 | Ha. |
| ▪ Napier crop border plantation(000 Rm.) | 347  | Ha. |

<b>Protected agricultural activities</b>		
▪ Poly tunnel and Poly house (No.)	7712	No.
<b>Livestock activities</b>		
▪ NBC (No.)	211	No.
▪ NBC Goat (No.)	70	No.
▪ Paravet (AI Service)	40	No.
▪ Animal Shelter (No.)	7082	No.
▪ Mass A.I.	1000	No.
<b>Income Generation Activities for Vulnerable Group members</b>		
▪ IGA activities (no. of individual beneficiaries)	4013	No.
▪ IGA activities (no. of Groups)	570	No.
<b>Capacity Development activities</b>		
▪ Training and Exposure Visits (Groups)	5440	No.
▪ Staff Training (No.)	2144	No.
▪ Workshops (No.)	11846	No.
<b>Water Harvesting, conservation and use</b>		
▪ Irrigation Channel	176	Km.
▪ HDPE Irrigation Pipeline	218	Km.
▪ Irrigation Tank	992	No.
▪ LDPE Tank	316	No.
▪ Pre Fabricated Geo Membrane Water Harvesting Tank	56	No.
▪ Solar Irrigation Systems	11	No.
▪ Roof Water Harvesting Tank	7973	No.
▪ Village Pond	493	No.
▪ Recharge pit	31858	Cum
▪ Digging of trenches	422668	No
▪ Renovation of existing Tal/Khal and Naulas	6295	No.
<b>Soil Conservation activities</b>		
▪ Drainage Line Treatment	570587	Cum
▪ Soil Conservation Structure	87053	Cum
<b>Energy Conservation activities</b>		
▪ Bio Gas Plant	46	No.
▪ Solar lantern	7069	No.
▪ Community Solar street panel	5349	No.
<b>Rural Road connectivity program</b>		
▪ Rural road improvement	331	Km
▪ Construction of small Bridges	464	No.

## **FINANCIAL STATUS - FY 2019-20 (SEPTEMBER 2019)**

Annual Work Plan for 2019-20 is of Rs. 21058.71 Lakh including beneficiary contribution Rs. 764.92 Lakh.

Budget Provision during FY 2019-20 is Rs. 20293.79 Lakh.

Expenditure during FY 2019-20 is Rs 2999.04 Lakh, while Cumulative expenditure since the inception of the Project is Rs.58532.94 Lakh.

In addition to the above expenditure beneficiary contribution During the FY 2019-20 is Rs. 47.97 Lakh, while cumulative beneficiary contribution is Rs. 3006.46 Lakh.

## STATUS OF REIMBURSEMENT

Reimbursement received to the State Government till September 2019 is Rs.40089.20 Lakh (59.67 MUS\$).

## KEY PERFORMANCE INDICATORS (KPIs)

PDO level result Indicator	Cumulative progress since July 2015
<b>Indicator 1 :</b> Increase in water discharge – 25%	<ul style="list-style-type: none"> <li>• 1,484 treated traditional water sources showed increase in water discharge, 6,185 existing Tal/ Khal and 110 Naulas renovated.</li> </ul>
<b>Indicator 2 :</b> Increase in biomass. – 20%	<ul style="list-style-type: none"> <li>• 8,886 ha. Vegetative cover increased (about 41% of targeted).</li> </ul>
<b>Indicator 3:</b> Increase in rain-fed area under irrigation – irrigated 5262 ha. To 7800 ha	<ul style="list-style-type: none"> <li>• Increase in gross irrigated area – 6,356 ha</li> <li>• Water holding capacity increased;               <ul style="list-style-type: none"> <li>○ through different storage structures – 49,273 cum for irrigation.</li> <li>○ through dugout ponds and other percolation structures -5,25,624 cum to increase soil moisture regime, in rainfed areas.</li> </ul> </li> </ul>
<b>Indicator 4:</b> Increase in productivity in irrigated – 50% and rainfed crops– 20%	<p><b>Irrigated area</b></p> <ul style="list-style-type: none"> <li>• 43% farmers have adopted efficient irrigated crop production technologies.</li> <li>• 27,013 demonstrations in irrigated area.</li> <li>• 7,712 Poly house and Poly tunnels.</li> <li>• Input support for off-season high value crops in 2,321 ha. benefitting 15,321 farmers.</li> </ul>
	<p><b>Rainfed area</b></p> <ul style="list-style-type: none"> <li>• 58% farmers have adopted in-situ soil and moisture practices along with efficient crop production technologies</li> <li>• 18,678 no. of demonstrations done.</li> <li>• Adoption of high value crops in 2,996 ha. covering 1057 villages and benefitting 49,932 farmers.</li> <li>• Agriculture terraces repaired in 19,617 cum.</li> <li>• 2,208 ha fallow land shifted to horticulture and agriculture cultivation</li> </ul>
<b>Indicator 5:</b> Direct project beneficiaries, - 80% of which % of female – 50%	<ul style="list-style-type: none"> <li>• Approx 68% farmers adopted efficient farming practices through demonstration and adoption practices</li> <li>• 15,321 farmers benefited through agribusiness initiative. 1,367 FIGs formed.</li> <li>• About 29,100 HHs benefited through animal husbandry improvement</li> <li>• 4,013 individual and 570 group total 7,046 vulnerable household benefited through IGA of which 40% are women beneficiaries.</li> </ul>

# **CHAPTER -1**

## **ABOUT THE PROJECT**

---

### **1.1. BACKGROUND**

Watershed is a hydrological unit of an area draining to a common outlet point. It is recognized as an ideal unit for planning and development of land, water and vegetation resource. Watershed concept has been used extensively because of importance of water balance in the study of ecosystems. Integrated watershed management covering an area from the highest point (ridge line) to the outlet is, therefore, the process of formulating, implementing and managing a course of actions involving natural and human resources in a watershed. It takes into account all the factors operating within the watershed. With time the watershed management concept has evolved into a decentralized and participatory approach with financial autonomy to the Panchayati Raj Institution (PRIs), (legal institution under 73rd amendment) thereby improving and ensuring efficient process delivery system. In watershed management the decision making regarding uses and modification of all categories of lands and water within the watershed are made in an iterative process with participation of all stakeholders in the Gram Panchayats (GPs). The repeated coming together and discussion provides opportunity to all stakeholders to balance diverse objectives for enhancement of productivity not only of individually owned resources but also of common property resources, and to consider how their cumulative actions may ensure long term sustainable use of all the natural resources. Since the last decade, it has been realized that ensuring livelihood opportunities and food security of the rural inhabitants is must for a sustainable watershed management approach, thus, focus on increasing the productivity of rainfed areas and ensuring livelihood opportunity for poorest of the poor is the mandate of the project.

### **1.2. PROJECT OBJECTIVE**

The objective of the Project is to increase the efficiency of natural resource use and productivity



of rainfed agriculture by participating communities in selected micro watersheds of the State of Uttarakhand.

### 1.3. PROJECT BENEFICIARIES

The project is expected to benefit about 66,352 households. By enhancing the natural resource base and improving sustainability, the project targeted 525 GPs, which are selected in accordance with the Govt's Common Guidelines for Watershed Development Projects. The proposed project would support Farmer Federations (FFs) formed under the Gramya- I to ensure their sustainability, scale up their agribusiness development and support the following beneficiary groups:-

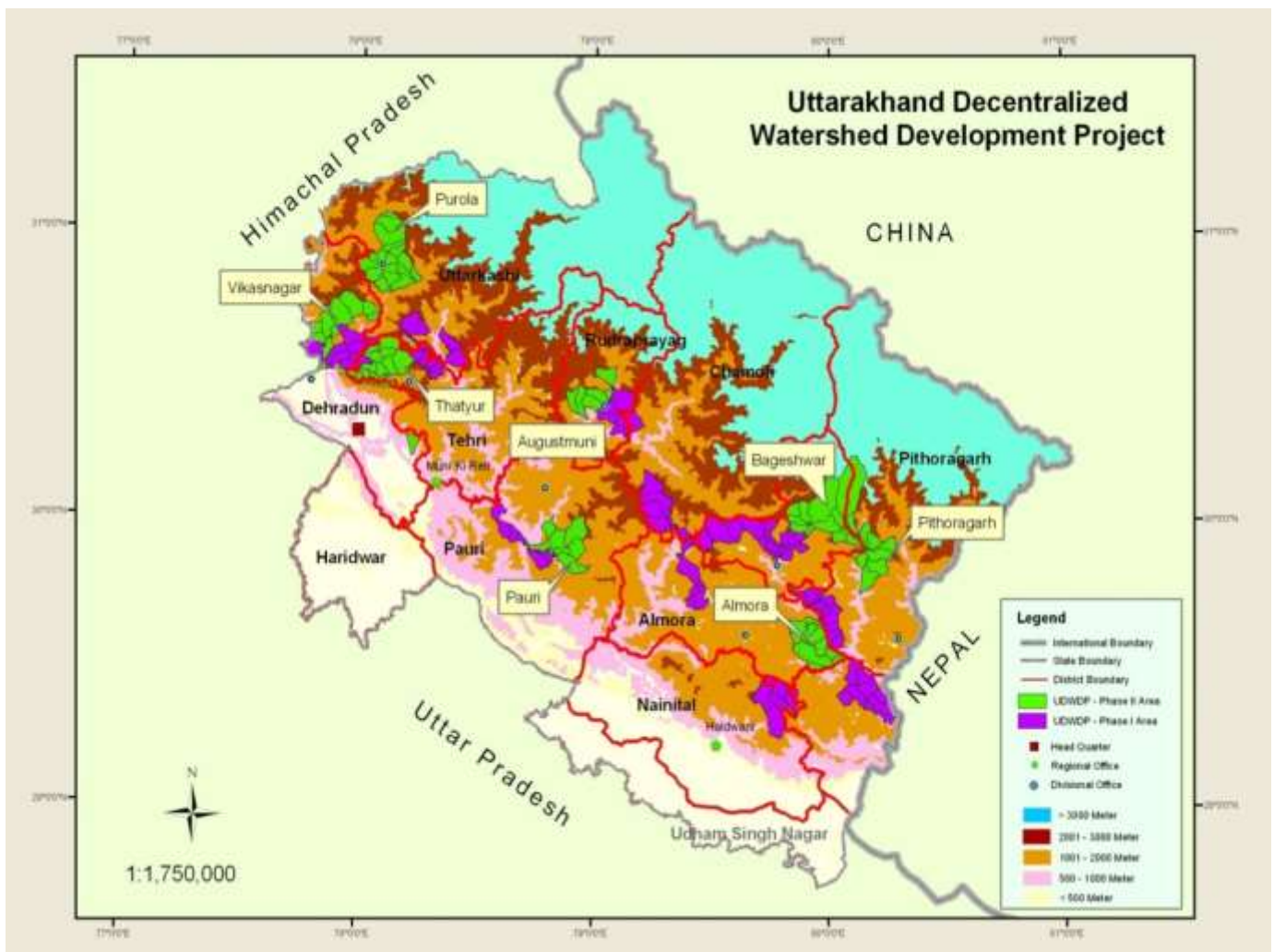
**Medium, small and marginal farmers:** would benefit from: (a) watershed treatment, in particular, rainwater conservation and water harvesting structures that would increase water availability and efficiency; (b) improved support services in agriculture, horticulture, and livestock, including rainfed agriculture development; and (c) agribusiness development and market linkages. **Vulnerable groups** (e.g., marginal landholders, landless, women, and transhumance): would benefit from: (a) improved livelihoods, mainly in the livestock and services sectors; and (b) support of transhumance through a dedicated Transhumant Action Plan.

**PRI institutions, such as GPs:** would gain capacity in project management and social accountability, in particular, in preparing and implementing Gram Panchayat Watershed Development Plans (GPWDPs). Gramya II would also engage Van Panchayats (VPs) in managing interventions for inter-GP areas and reserve forests. The project would also promote the formation of community-based organizations, such as water user groups, farmer interest groups (FIGs), and FFs.

**Key institutional stakeholders in watershed development:** would benefit under Gramya II through expanded knowledge outreach to Partner NGOs, Field NGOs, agribusiness support agencies, six district headquarters, regional headquarters in each of the two regions of the State of Uttarakhand and the Watershed Management Directorate (WMD).

## 1.4. PROJECT AREA

Middle Himalayas adjoining the Gramya-I area in about 82 MWS covering an area of about 2.638 lakh ha. Project would re-visit the UDWDP Phase-I areas to consolidate its achievements especially with focus on agribusiness. The Project area falls in 18 development blocks of 8 hill districts of the State. Project proposes to benefit 2.92 lakh population of about 524 GPs (1057 Revenue Villages, 66,352 Households).



## DETAIL OF PROJECT AREA SELECTED FOR UDWDP – II

District	Development Blocks	No. of MWS	Area (Ha.)	Gram Panchayat		Revenue Villages		Arable Land (in Ha)		
				No.	Area (Ha.)	No.	Area (Ha.)	Irrigated	Un-irrigated	Total arable area
Almora	Dhauladevi, Bhasiyanchana	9	28396	87	24421.12	188	24421.12	430.008	7711.89	8141.898
Uttarkashi	Mori, Naugaon, Purola	17	45103	68	9820.12	120	9820.12	1373.265	3326.559	4699.824
Dehradun	Kalsi, Chakrata	9	29242	56	21016.765	76	21016.765	618.846	3237.656	3856.502
Tehri	Jaunpur	13	31730	78	17833.16	143	17833.16	410.469	4524.372	4934.841
Rudraprayag	Ukhimath, Jakholi, Augustmuni	6	19201	61	7885.40	107	7885.40	674.308	3149.434	3823.742
Pithoragarh	Munsiyari, Didihat, Berinag	9	25739	63	21791.12	147	21791.12	747.594	3592.729	4340.323
Bageshwar	Kapkot	11	55296	43	34456	78	34456	750.736	3781.966	4532.702
Pauri	Pokhara, Ekeshwar	7	26713	62	12091.42	175	12091.42	185.151	4529.378	4714.529
Model MWS	Raipur	1	2417	7	4023.41	23	4023.41	56.009	421.933	477.942
<b>TOTAL</b>	<b>18</b>	<b>82</b>	<b>263837</b>	<b>525</b>	<b>153318.77</b>	<b>1057</b>	<b>153318.77</b>	<b>5246.386</b>	<b>34275.917</b>	<b>39522.3028</b>

## 1.5. PROJECT PERIOD

The project period will be for seven years i.e. from July 2014 to September 2021.

## 1.6. PROJECT COST

The project cost is 170.0 million US\$ with IDA Credit as 121.2 million US\$ (71.3%), State contribution as 45.8 million US\$ (27.0%) and beneficiary contribution as 3.0 million US\$ (1.7%).

Project Components	Project Cost		IDA Financing		GoUK Financing		Beneficiary Contribution	
	Million US\$	%	Million US\$	%	Million US\$	%	Million US\$	%
1. Social Mobilization and Participatory Watershed Planning	30.0	17.6	13.9	46.4	16.1	53.6	0.0	0.0
2. Watershed Treatment and Rainfed Area Development	90.3	53.2	72.3	80.0	15.1	16.7	3.0	3.3
3. Enhancing Livelihood Opportunities	18.7	11.0	14.9	80.0	3.7	20.0	0.0	0.0
4. Knowledge Management and Project Coordination	31.0	18.2	20.1	64.8	10.9	35.2	0.0	0.0
<b>Total Project Cost</b>	<b>170.0</b>	<b>100</b>	<b>121.2</b>	<b>71.3</b>	<b>45.8</b>	<b>27.0</b>	<b>3.0</b>	<b>1.7</b>

## 1.7. PROJECT COMPONENTS

### COMPONENT 1: Social Mobilization and Participatory Watershed Planning (US\$ 30.0 Million)

- (a) Mobilization of GPs in order to prepare integrated and coordinated GPWDPs including, inter alia, the identification of specific interventions to increase effective land use and water resource management and develop agriculture and income generation activities.
- (b) Development of watershed treatment plans to guide the preparation and implementation of GPWDPs.

### COMPONENT 2: Watershed Treatment and Rainfed Area Development (US\$90.3 Million)

#### Sub Component 2 a. Watershed Treatment and Water Source Sustainability (US\$78.5 Million)

- (a) Construction and rehabilitation of recharge pits, ponds, vegetative structures and other soil conservation structures
- (b) Perimeter rehabilitation with Napier and other grasses
- (c) Forestry activities (e.g., plantations and nursery development) and
- (d) Promotion of alternate energy sources (e.g., biogas plants, solar cookers, water mills, and pine briquette production).

### **Sub Component 2 b. Rainfed Area Development (US\$11.8 million, of which IDA US\$9.5 million)**

In the rainfed areas, the improved seeds would promote rainwater conservation, climate-smart agricultural practices, and on-farm integrated crop management. In the irrigated areas, the project would promote diversification to high-value off-season vegetable crops, adoption of innovative agronomic practices, establishment of greenhouses and tunnels, productivity enhancement of irrigated maize, wheat and other crops, and production of bio-fertilizers and vermi-compost. The Project would also provide support in the horticulture and livestock sectors, including new orchard development, orchard rehabilitation, fodder production, and livestock genetic upgrading.

### **COMPONENT 3: Enhancing Livelihood Opportunities (US\$18.7 million, of which IDA US\$14.9 million)**

#### **Sub Component 3 a. Agribusiness Support (US\$9.1 million, of which IDA US\$7.2 million)**

The support would include:

- (a) Formation of FIGs and their FFs, building on project supported water user groups and others;
- (b) Building capacity of FIGs and FFs in business planning and supply chain development, including input supply and value addition and
- (c) Providing market oriented extension services and marketing support, including market intelligence and brand creation.

#### **Sub Component 3 b. Support for Vulnerable Groups (US\$7.2 million, of which IDA US\$5.8 million)-**

- (a) To finance entrepreneurial activities for Vulnerable Groups in the targeted GPs, including landless, vulnerable women, and transhumance, who will not directly benefit from the major project investments under Component
- (b) The Project has a dedicated transhumant action plan, which will have an emphasis on livestock support.

#### **Sub-Component 3c - Consolidation of Gramya-I activities (US\$2.4 million, of which IDA US\$1.9 million) -**

It would repair the damaged assets created in Gramya-I and strengthen the business planning and management capacity of 27 FFs formed under Gramya I to develop them as sustainable producer businesses. The support for agribusiness development will be provided by local NGOs.

**COMPONENT 4: Knowledge Management and Project Coordination (US\$31.0 million, of which IDA US\$20.1 million)**

**Sub-component 4a: Knowledge Management (US\$11.7 million, of which IDA US\$9.3 million)-**

- (a) Training and dissemination activities for targeted local institutions and the Gol-supported programs
- (b) Establishment of a Center of Excellence in Watershed Development.
- (c) Information and educational exchanges among and between the various Gramya II stakeholders
- (d) Project supervision through an ICT-based management information system (MIS)
- (e) Hydrology monitoring stations to build a comprehensive dataset at the micro watershed level and
- (f) Social accountability through participatory monitoring exercises (PMEs), social audits and grievance redress mechanisms.

**Sub-component 4b: Project Coordination (US\$19.3 million, of which IDA US\$10.8 million) –**

- (a) Incremental expenditures incurred by the Project Implementing Entity for Project implementation, management and supervision
- (b) Financial management and annual internal and external audits
- (c) Incremental contractual staff salaries (other than consultants), excluding salaries of civil servants deputed to the Project and
- (d) Dissemination of Project-related information.

## **1.8. PROJECT HIGHLIGHTS**

- ❖ Community driven decentralized development approach
- ❖ Learning from UDWDP Phase-I are incorporated to design the second phase of the project.
- ❖ Formulation of Gram Panchayat Watershed Development Plans (GPWDP) by the community.
- ❖ Budget envelop for GPWDP is calculated on the basis of 35% of population and 65% of GP area, with a minimum cap of Rs. 40 lakhs and a maximum cap of Rs. 1.60 Crore.
- ❖ Provision of dedicated account at GP level for the Project funds.
- ❖ The Project fund is being operated by the joint signature of Gram Pradhan and Woman Ward Member.
- ❖ In compliance with the 73<sup>rd</sup> constitutional amendment adequate financial and administrative autonomy is provided to GPs.
- ❖ Involvement of NGOs for mobilization, implementation and monitoring level.

- ❖ Appointment of dedicated Account Assistant by Gram Panchayat.
- ❖ Appointment of village level woman motivator.
- ❖ Provision of Procurement and financial system manuals for GPs.
- ❖ Provision of Women Aam Sabha for consent to GPWDP and 50% women representation in village level committees.
- ❖ Focus on Water User Groups, Vulnerable Groups & Transhumant Population.
- ❖ Formation of Farmer Interest Groups (FIGs), Farmer Federation (FF) for market linkages and Agribusiness initiative.
- ❖ Participatory Monitoring and Evaluation (PME) at GP level as a tool for social audit and transparency.
- ❖ Market linkages through Agribusiness Support Agencies.
- ❖ Convergence at GP level with other development programmes/schemes.
- ❖ Sustainable institutional arrangement and assets maintenance plans.

## **1.9. EXPECTED OUTCOME INDICATORS**

1. Increase in water discharge – 25% at the end of the Project (7<sup>th</sup> year)
2. Increase in biomass – 20% at the end of the Project (7<sup>th</sup> year)
3. Increase in rainfed area under irrigation- 5262 ha. to 7800 ha. at the end of the Project (7<sup>th</sup> year)
4. Increase in productivity in irrigated and rainfed crops –50% of irrigated and 20% of rainfed at the end of the Project (7<sup>th</sup> year)
5. 80% HHs should be direct project beneficiaries from the Project interventions.

## **1.10. ENVIRONMENTAL AND SOCIAL SAFEGUARDS THE PROJECT**

The application and mitigation of all environment and social safeguards policies of World Bank are being addressed through the Environmental and Social Management Framework (ESMF) in planning and implementation of Project activities. The ESMF is applied as a tool for decision-making to promote environmental sustainability and equity. The ESMF includes criteria for screening and exclusion of subprojects that may have irreversible impacts and includes formats to carry out the Environmental and Social Assessment during GPWDP preparation. Wherever required, mitigation measures are also being proposed. The implementation status of mitigation measures is proposed to be monitored and evaluate from second round of PME; as the first round of PME is already in progress in different GPs.

**THE STRATEGIES/ ACTIVITIES APPLICABLE TO WORLD BANK'S SAFEGUARD POLICIES ARE AS FOLLOWS:**

S. no.	Name and code of World Bank's safeguard policy	Strategies/ Activities under UDWDP-II
1	<b>Environmental Assessment (OP 4.01)</b>	Participatory planning through traditional local knowledge along with technical inputs of MTD members and side specific designs are being used for the implementation of watershed-related interventions to reduce any adverse impact on the hydraulic and geological regime in the area. Mitigation measures are also being taken up to prevent long-term slope instability, changes in surface water flow, improper disposal of debris or changes in water availability.
2	<b>Natural Habitats (OP 4.04)</b>	The soil and moisture conservation activities, maintenance and rejuvenation of water sources, protection activities like Oak ANR and rehabilitation of slopes through vegetative treatment along with forage row plantation will have positive impact on natural habitats and their functions.
3	<b>Pest Management (OP 4.09)</b>	Integrate Pest & Disease Management (IPDM) is a integral part of Project's Integrated Crop management (ICM) approach. IDPM is a tool for pests and disease management, where in mechanical, cultural, biological, chemical, use of resistant varieties, and quarantine methods are carefully combined to keep pest & diseases at below economic injure levels to obtain optimum crop yields.
4	<b>Physical Cultural Resources (OP/BP 4.11)</b>	In accordance to the criteria for exclusion of sub-projects/activities under Project, such activities are being excluded, which may cause damage to cultural property, places of religious importance and restricted historical monuments viz. resources of archeological, paleontological, historical, architectural, religious (including graveyards and burial sites), aesthetic, or other cultural significance.
5	<b>Indigenous Peoples (OD 4.20)</b>	Project fosters full respect for indigenous peoples' dignity, human rights, and cultural uniqueness and so that they; (i) receive culturally compatible social and economic benefits, and (ii) do not suffer adverse effects during the implementation of project activities. Under the Project a strategy has been formulated for traversing and semi-sedentary transhumant population to assist them in an attempt to improve their quality of life through project interventions.
6	<b>Forest OP 4.36)</b>	All the NRM related activities in reserved and protected forests under project area are in process of planning in accordance to the Forest Working Plan with the approval of Divisional Forest Officer. The activities will be implemented through Van Panchayats along with technical inputs of MDT to enhance the health and quality of forests.

**1.11. MONITORING IN THE PROJECT**

- ❖ **State and District level monitoring** : State Steering Committee and District level Watershed Committees have been constituted and regular meetings are being organized
- ❖ **Internal Monitoring** :
  - WMD staff does regular field visits ,
  - Through MIS/GIS: Financial progress reports are generated regularly using FMIS.
  - HHs wise data base for beneficiaries for each activity is being generated.



- ❖ **Evidence based monitoring:** 'Pratyakshapp' is used regularly to obtain the information and photographs of field level created assets on GIS platform.
- ❖ **External Monitoring:** Baseline Survey, concurrent monitoring, mid-term review and final impact evaluation.
  - Inception report submitted and working draft of baseline survey also submitted.
- ❖ **Hydrological monitoring:** Continuous monitoring on surface runoff, reduction in silt load and increase in water availability in selected 8 MWS.
  - Inception report submitted and baseline survey to commence soon.

## 1.12. AUDIT ARRANGEMENTS IN THE PROJECT

1. **External Audit:** Annual Certification AG audit of the Project.
2. **Internal Audit:** Quarterly and Annual Audit of all the Project offices and 20% sample GPs by an independent firm of Chartered Accountant empanelled in the CAG roll.
3. **Post Procurement Audit:** by World Bank on annual basis.
4. **GP Audit:** All the Gram Panchayats in the Project are subjected to the annual mandatory audit by an independent audit firm.

## 1.13. STATUTORY COMMITTEES IN THE PROJECT

1. **At Gram Panchayat level** – Water and Watershed Management Committee under the Chairmanship of Gram Pradhan
2. **At District level** – District watershed Committee under the Chairmanship of Zila Panchayat Adhayaksh
3. **At State level** – Project State Steering Committee under the Chairmanship of Additional Chief Secretary and APC, Govt. of Uttarakhand

## 1.14. LEGAL COVENANTS APPLICABLE TO THE PROJECT

1. **Project Steering Committee** - Establish and thereafter maintain throughout the period of implementation of the Project, a state-level steering committee.
2. **WMD Multi-disciplinary teams at district level-** For each district involved in the Project, designate and thereafter maintain throughout the period of implementation of the Project, a multi-disciplinary team.
3. **Project internal Auditor** - Hire by no later than six (6) months after the Effective Date, an internal auditor, under terms of reference acceptable to the Association.
4. **Project computerized accounting system-** Establish by no later than three (3) month after the Effective Date, and thereafter maintain throughout the period of implementation of the Project, a computerized accounting system.

5. **Interim Financial Report-** Furnish to the Recipient and the Association, not later than forty-five (45) days after the end of each calendar quarter, an interim financial report.
6. **Operational manual and safeguards instruments** - The Project Implementing Entity shall implement the Project in accordance with the Operations Manual, ESMF and each environmental management plan and/or social management plan prepared there under, and TAP.

### **1.15. PROJECT PREPARATION - KEY DATES**

1. Project Preparation Mission - April 15-23, 2013
2. Project Appraisal Mission - November 11-16, 2013
3. Project Negotiation - January 8, 2014
4. World Bank Board Approval - March 31st 2014
5. Project Agreement Signing- 30<sup>th</sup> May, 2014
6. Project effectiveness date – 15<sup>th</sup> July, 2014
7. Project Closing date – 30<sup>th</sup> September, 2021

### **1.16. PROJECT MANUALS**

The Project Manuals are prepared in-house to adopt uniform planning and implementation approach, technical guidance and smooth financial and procurement procedures for all the Project stakeholder. The main Project Manuals are:-

Operational Manual, Environmental & Social Management Framework (ESMF), Project Procurement Manual, Community Procurement Manual, Financial Management System, Financial System Manual for GP, Forestry, Soil & Water Conservation, Agriculture & Horticulture Component, Animal Husbandry Component, Capacity building strategy, Communication strategy, Agribusiness strategy, Participatory Monitoring & Evaluation and Transhumant Action Plan (TAP) have been prepared and hosted in the website <http://wmduk.gov.in/UDWDP.html>.

## CHAPTER -2

### FINANCIAL PROFILE OF THE PROJECT (SEPTEMBER 2019)

#### 2.1. BUDGET PROVISION AND STATUS OF EXPENDITURE FY 2019-20

Cumulative expenditure till March, 2019	Progress during the Financial Year 2019-20 (Rs. in Lakh)						Cumulative expenditure since the inception of the Project
	Outlay	Budget Provision	Released Budget	Expenditure up to August, 2019	Expenditure during Sept., 2019	Cumulative Expenditure during FY 2019-20	
55533.90	20293.79	20293.79	11363.75	2515.90	483.14	2999.04	58532.94

- ❖ In addition to the above beneficiary contribution During the FY 2019-20 is 47.97 Lakh.
- ❖ Cumulative beneficiary contribution is Rs 3006.46 Lakh.

#### 2.2. FINANCIAL PROGRESS (Rs. in Cr.)

	Total	IDA	Beneficiary contribution	State contribution
Project cost:	1020	727	18	275
Expenditure up to March 2019:	584.92	401.45	29.58	153.89
AWP 2019-20:	210.59	152.76	7.65	50.18
Expenditure During FY 2019-20 up to September 2019:	30.47	17.42	0.48	12.57
Cumulative expenditure up to Sept. 2019	615.39	418.87	30.06	166.46
<b>Reimbursement up to Sept., 2019</b>	<b>403.30 (60.01 MUS\$)</b>			

#### 2.3. COMPONENT WISE FINANCIAL PROGRESS (Rs. in Cr.)

Sl. No.	Component / Sub-Component	Project Target (for project period)	Financial Progress Till FY 2018-19	Financial Progress FY 2019-20	Cumulative progress since inception of the project
1	2	3	4	4	5
1	Social Mobilization and Participatory Watershed Planning	179.91	92.92	8.79	101.71
2	Watershed Treatment & Rain-fed Area Development	541.94	338.12	10.77	348.89

Sl. No.	Component / Sub-Component	Project Target (for project period)	Financial Progress Till FY 2018-19	Financial Progress FY 2019-20	Cumulative progress since inception of the project
1	2	3	4	4	5
3	Enhancing Livelihood Opportunities	112.11	48.03	2.86	50.89
4	Knowledge Management and Project Coordination	185.80	105.85	8.05	113.90
	<b>GRAND TOTAL (1-4)</b>	<b>1019.77</b>	<b>584.92</b>	<b>30.47</b>	<b>615.39</b>

## 2.4. ESTIMATED PROJECTED EXPENDITURE FOR THE FINANCIAL YEAR 2019-20

IN MUS\$

	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter	Total
Total Expenditure	1.60	6.69	7.51	14.21	30.01
Reimbursable Amount	0.34	4.81	5.36	11.31	21.82

## 2.5. ANNUAL WORK PLAN FOR 2019-20

Subject / component	Rs. in Lakh
<b>Annual Work Plan 2018-19</b>	<b>21058.71</b>
<b>Budgeted Amount</b>	<b>20293.79</b>
❖ Salaries	<b>1963.95</b>
❖ Operating Cost	<b>668.82</b>
❖ Work Component	<b>17661.03</b>
<b>Proposed Beneficiary Contribution</b>	<b>764.92</b>
<b>Budget Provision</b>	<b>20293.79</b>
<b>Released Budget</b>	<b>11363.75</b>

## 2.6. PROJECT DISBURSEMENT PROFILE

As per the Project Appraisal Document (PAD) following disbursement profile is envisaged for the Project during its operational period.

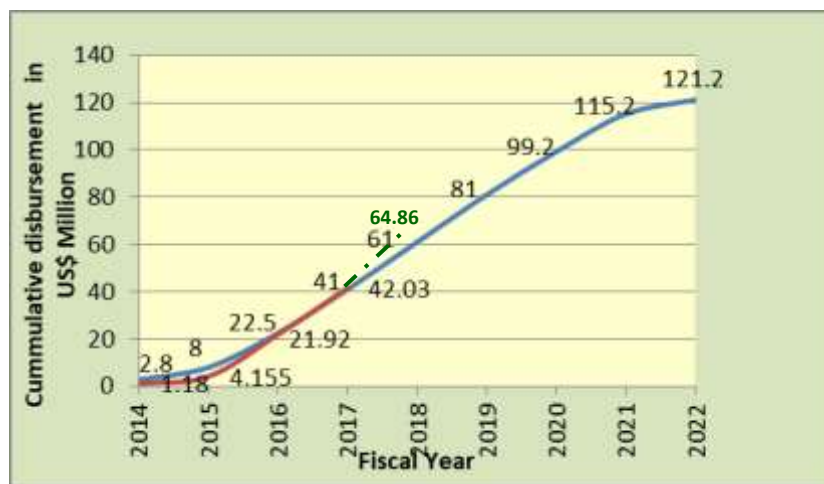
### EXPECTED DISBURSEMENTS (IN USD MILLION)

Fiscal Year (1 <sup>st</sup> April to 31 <sup>st</sup> March)	2014	2015	2016	2017	2018	2019	2020	2021	2022
Annual	2.80	5.20	14.50	18.50	20.00	20.00	18.20	16.00	6.00
Cumulative	2.80	8.00	22.50	41.00	61.00	81.00	99.20	115.20	121.20

The Annual Work Plan of UDWDP-II is prepared as per the targeted disbursement profile. The same figure translates in to the budgetary provision for the Project.

## 2.7. CUMULATIVE DISBURSEMENT STATUS

**Project Size - 170.00 Million US\$**  
**Assistance size - 121.20 Million US\$**  
**Disbursement Graph as of March 31<sup>st</sup>, 2018**



index	
Cumulative	
Achieved	
Projection FY 2018-19	

### Disbursement Profile as per PAD (in US\$ Million)

Fiscal Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
Projected Cumulative disbursement	2.8	8.0	22.5	41.0	61.0	81.0	99.2	115.2	121.2
Actual Disbursement Status	1.18	4.155	21.92	41.60	59.67				

**Note :** i) Till date 59.67 MUS\$ has been disbursed;  
 ii) Projected disbursement for FY 2019-20 is 21.82 MUS\$,

## 2.8. UPDATED STATUS OF REIMBURSEMENT

Reimbursement received to the State Government is given below:-

Sl. No.	Claim Application No.	Submission date	Amount in INR lakh	Remarks
1	1	26-06-2014	270.24	Retroactive financing
2	2	07-08-2014	46.42	1. Salary component is non reimbursable  2. All other Budgeted expenditures are reimbursed by World Bank @ 80% of the expenditure.
3	3	18-10-2014	122.89	
4	4	16-01-2015	285.38	
5	5	12-05-2015	1057.63	
6	6	27-07-2015	127.83	
7	8	09-11-2015	483.24	
8	9	08-02-2016	261.33	
9	10	19-05-2016	2742.10	
10	11	08-08-2016	655.53	
11	12	18-11-2016	1998.31	
12	13	06-02-2017	1497.88	
13	14	17.05.2017	4908.71	
14	15	29.07.2017	526.40	

Sl. No.	Claim Application No.	Submission date	Amount in INR lakh	Remarks
15	16	23.11.2017	2303.58	
16	17	07.02.2018	3287.50	
17	18	17.05.2018	6845.66	
18	19	01.08.2018	296.912	
19	20	14.11.2018	2813.48	
20	21	16.02.2019	2965.17	
21	22	15.05.2019	6593.01	
22	23	07.08.2019	240.64	
<b>Total</b>			403.30	
			<b>60.01 MUS\$</b>	

## 2.9. PROJECT DISBURSEMENT TRACKING

UTTARAKHAND DECENTRALIZED WATERSHED DEVELOPMENT –II PROJECT (GRAMYA-II) (IDA CR.NO- 5369-IN)		
	<b>SITUATION AS OF:31-07-2019</b>	<b>US\$</b>
	<b>BANK ACTUALS AT BEGINNING OF FY 2019-20</b>	
<b>1</b>	<b>Total Loan/Credit Amount</b>	<b>121200000</b>
<b>2</b>	<b>Undisbursed Balance at Beginning of FY 2019-20</b>	<b>61527142</b>
<b>3</b>	<b>Total Commitments at Beginning of FY 2019-20</b>	<b>21504354</b>
	<b>PLANNED LOAN/CREDIT DISBURSEMENTS, CURRENT BANK FY</b>	
<b>4</b>	<b>Projected Loan/Credit Disbursements for FY 2019-20</b>	<b>-</b>
<b>5</b>	<b>Projected Additional Commitments for FY 2019-20</b>	<b>318231</b>
	<b>BANK ACTUALS UNTIL TO DATE</b>	
<b>6</b>	<b>Cumulative Actual Disbursements in FY 2019-20</b>	<b>337414</b>
<b>7</b>	<b>Cumulative Actual New Commitments in FY 2018-19</b>	<b>21822585</b>
	<b>PLANNING FOR REMAINDER OF FY 2018-19</b>	
<b>8</b>	<b>Projected Disbursements for Remainder of FY 2018-19</b>	<b>21504354</b>
<b>9</b>	<b>Projected New Commitments for Remainder of FY 2018-19</b>	<b>-</b>

Note:- Bank FY means 1<sup>st</sup> July to 30<sup>th</sup> June.

## CHAPTER - 3

### INNOVATIVE ACTIVITIES AND THRUST AREAS UNDER PROJECT

---

#### 3.1. INNOVATIVE INTERVENTIONS:

##### 3.1.1. Solar Irrigation System

With more than 90% of the agriculture in the hill districts being rainfed, marginal and small farmers are under continuous pressure to sustain their agriculture productivity. One of the main factors which affect agricultural productivity in the hills is availability of water. In the villages with agricultural fields at up-stream and water source at the down-stream, solar energy pumps are being promoted by the project to ensure availability of water for irrigation and other chores.

In order to ensure optimum utilization of the collected water and increase the efficiency of water usage, technologies like sprinkler and drip irrigation systems are also being promoted. So far, 11 solar irrigation systems are being installed, through which about 193,000 liters of additional storage capacity have been developed and are providing irrigation facilities in 144 ha gross rainfed area.



##### 3.1.2. Mass Artificial Insemination in clusters with Female Sorted Sexed Semen Technology

Under Gramya-2 project area of Pauri division specially, it has been observed that the continuous movement and permanent resettlement of the people out of their native mountain villages has been a topic of intense social and political debate in Uttarakhand, with a very high degree of Agro-climatic diversity, fragmented land holdings, enormous pressure of wild animals on the existing rainfed areas. Due to all these constraints, the people of the area are forced to look for alternative

avenues to augment their better incomes. Switching on to the livestock livelihoods, with strategic group discussions and meetings with project staff , communities and animal husbandry deptt., it was decided to bring forth the idea of creating surplus produce of milk by employing the Mass Artificial Insemination in the breedable animals of the two blocks, which is technically synchronising their oestrus cycle through hormonal therapy and medicines so that most of the breedable cattle are undergoing Artificial Insemination which actually is Mass Artificial Insemination. In the initial stage only 200 animals were taken as case study, which went off with very good results, thus inviting a bigger goal of Mass A.I. in 2000 animals and with adds-on comprising new technology of Female Sorted Sexed Semen.



**Impact of the intervention-** After a period of one year, this has proved timely service availability of the skilled paravet with the least number of visits, saving the expected losses occurring due to errors in heat detection, anoestrus & repeat breeding, removing the feeding expenses of male calves and ultimately decreasing dry period and reducing the feeding expenses and finally creating opportunity to sell surplus heifers to other farmers.



### 3.1.3. Certified Seed Production in rainfed areas

In Uttarakhand, impacts of climate change are leading to decrease in productivity which is adversely affecting the livelihoods of the 70% of population engaged in agriculture. Thus, project is focusing to increase the productivity with the viewpoint of increase in household income of mountain farmers. Of all the inputs used in agriculture, use of quality seed plays an important role in deciding the productivity of crops. The seed replacement rate for the plains stands at 15 -20 percent, while for the hills it is a mere 3 – 4 per cent. Mountain farmers are in practice of saving produce of their previous season's crop and using the same as seed for the next sowing season. Certified seeds of agriculture crops are available only with seed corporations. Although the state agriculture department promotes seed replacement by popularizing high yielding varieties through demonstrations and through subsidies on new varieties, yet the production of certified seeds needs special attention and care.

Over the years, raising cereal crops was increasingly viewed as non-profitable by the farming community. If the same could be done with an aim of producing certified seed, it would attract farmers towards cultivation of crops like barnyard and finger millets as a means of combating climate change. Though research institutes produce small amounts of breeder seed they need organized farmers collectives and institutes for its multiplication to foundation or certified seeds.



With this in mind, Gramya motivated, guided and organized the farmers of Dhaula Devi Block into FIG's and subsequently the 18 FIGs were registered as a federation called "Jagnath Krishi Beej Utpadak Sangh, Artola". The inception of the "Certified Seed Production Programme" took place in the year 2015. This federation was the first to receive the license to sell certified and foundation seeds from Tarai Seeds and Development Corporation (TDC).

*An increase in awareness regarding scientific cultivation methods and registration procedures for seed production among farmers on their own lands, leads to greater economic returns. Unlike other agricultural produce seeds can be multiplied and produced in the fields itself. Certified seeds cost two to four times more than the value of grain therefore their production is profitable and at the same time its contributes towards seed sufficiency of the state.*

Till now this federation has been marketed 271.3 qt certified seeds of Mandua, Madira, Ramdana, Gahat, Lantil, Mustard etc. with sale price of Rs 17,21,432.00. Current total savings of the federation are Rs. 1,52,277.00.

### **3.1.4. Conversion of Fallow lands into cultivable lands**

Migration is not a new phenomenon in the villages of Uttarakhand. In fact all the impacts of climate change in hill agriculture lead to migration from hill villages, which simultaneously lead to the conversion of cultivable lands into fallow lands. The capacity development and created irrigation facilities through project are motivating communities to expend their area under cultivation through cluster approach in fallows and generate marketable surplus of agri-horti produces. The comeback of migrated families and individuals, inspired through project's climate resilience practices is also impacting the land use change i.e., from fallow lands to cultivable land. In the project area a total of 2,208 ha fallow land have been shifted under cultivation till now through horticulture crop (1210.88 ha), fodder crop (659.43 ha) and agriculture crop cultivation (337.93 ha).



## 3.2. THRUST AREAS UNDER THE PROJECT:

### 3.2.1. Water Source Sustainability

The environmental conditions of the Himalayan region have been degrading and most of the forest stands have disappeared gradually. Simultaneously, Himalayan springs on which people depend, have dried up due to interference in their natural recharge caused mainly by deforestation, mining, construction of roads and other previous unplanned developmental activities. Thus, keeping the view point of rejuvenation of depleting traditional water sources through springshed management approach, the Project is focusing on; 1)- Controlling runoff to minimize intensity of soil erosion, 2)- Rain water conservation and reducing siltation through conservation structures, and 3)- Increase the ground water recharge through in-situ conservation practices and water harvesting structure to maintain the moisture regime and availability of irrigation.

To rejuvenate and increase water discharge in natural springs, dharas and naulas, treatment of the identified 1500 depleting traditional water sources has been targeted. The treatment of traditional water sources is being carried out by harvesting of rain water for ground water recharge through different vegetative and engineering measures. Till now construction of trenches 4,22,667 nos., village percolation ponds/ dugout ponds 516 nos. and 31,858 cum recharge pits is being done. These activities along with forestry and horticulture plantations are not only enhancing the moisture regime in the rainfed area but also would be helpful for rejuvenation of traditional water sources.



### **3.2.1. Agribusiness Growth Centres**

In the hill districts of Uttarakhand due to the geographical remoteness of villages, agriculture is not regarded as a viable business option as the landholdings are small, fragmented and productivity is very low. The hill farmers lack technical knowhow regarding diversification, modern agronomical practices, market access, scopes for credit linkages and options to do value addition of their farm produce. In this context, it is envisaged to establish agribusiness growth centres in remote areas of the state.

These Agribusiness Growth Centres will support the farmers in exploring, developing, processing, marketing, knowledge sharing, information dissemination and financing of the niche farm produce in the village clusters. The Growth centres will provide all possible inputs and output support facilities to the farmers in the nearby village clusters. Till date, 7 Agribusiness Growth Centres spread over 7 Developmental Blocks of Almora, Bageshwar, Dehradun, Pauri and Tehri districts, have been approved by State Govt. and construction is under progress.

## CHAPTER -4

### PROJECT COMPONENT WISE PHYSICAL ACHIEVEMENTS

#### 4.1. Social Mobilization and Participatory Watershed Planning

This component is focused on mobilization of GPs in order to prepare integrated and coordinated GPWDPs including, inter alia, the identification of specific interventions to increase effective land use and water resource management and develop agriculture and income generation activities. Keeping in view the holistic resource management, the development of micro watershed treatment plans including both, the GP area and the Inter GP area are also of prime focus under this component. The progress till month is as follows;

##### 4.1.1. Preparation of GPWDPs

Since the inception of Project activities at village level, Project has been implementing various capacity development exercises to mobilize the community to priorities their problems and prepare their GPWDP in accordance to the Environmental and Social Management Framework (ESMF) of the Project. A total of 525GPWDPs have been prepared.

##### Status of GPWDP preparation

Sl. No.	Name of Division	No. of GPs	No. of GPWDP prepared
1	Almora	87	87
2	Bageshwar	43	43
3	Pithoragarh	63	63
4	Dehradun	56	56
5	Tehri	78	78
6	Pauri	62	62
7	Rudraprayag	61	61
8	Uttarkashi	68	68
9	PMU (Model MWS)	7	7
<b>Total</b>		<b>525</b>	<b>525</b>

##### 4.1.2. Preparation of MWS Plans

The degraded micro watersheds in Uttarakhand are very prone to erosion and massive loss of top soil due to insufficient vegetative cover. To make efforts to reverse the situation, Project is implementing in a watershed approach i.e. the holistic treatment of micro watershed through top to down approach. Keeping this point in prime focus, MWS plans are being prepared by the

community level primary stakeholders under the project with an objective of comprehensive NRM activities for the management of local springsheds. The status of MWS plan preparation is given below;

#### Status of MWS Plan preparation

Sl. No.	Name of Division	No. of MWSs	No. of MWS prepared
1	Almora	9	9
2	Bageshwar	10	7
3	Pithoragarh	9	9
4	Dehradun	8	6
5	Tehri	13	8
6	Pauri	6	4
7	Rudraprayag	6	6
8	Uttarkashi	17	17
9	PMU (Model MWS)	1	1
<b>Total</b>		<b>79</b>	<b>67</b>

#### 4.1.3. Status of procurement of major consultancies

Hiring of all major consultancies i.e. PNGO Rudraprayag, FNGO Kumaon and Garhwal, M&E and Hydrology Consultancies, Internal Auditor and Six Agri Business Support Organizations is being finalized and all are in place. The details are given below:

Consultancy	Status	Name of Firm / Remarks
PNGO Rudraprayag	Finalized and Placed	Asian Society for Entrepreneurship Education and Development, New Delhi
FNGO Kumaon	Finalized and Placed	Himalayan Study Circle for Environment , Child education health and research
FNGO Garhwal	Finalized and Placed	Society of People for Development (SPD) Dehradun
M&E Consultancy	Finalized and Placed, Inception report approved	Sutra Consulting Pvt. Ltd, B 117, Sarvodaya Enclave, New Delhi.
Hydrology Consultancy	Finalized and Placed	M/s WAPCOS Ltd., 76-C Institutional Area, Sector 18, Gurgaon, Haryana
Internal Auditor	Finalized and Placed	M/s GoyalParul& Co., Chartered Accountants, 54, Meedo Complex, Near Saharanpur Chowk, Dehradun
Six Agri Business Support Organisation:	Finalized and Placed	Six ABSOs are in place (3 in Kumaon and 3 in Garhwal).

#### 4.1.4. Status of Labour Man days generated

Migration in the Himalayas, as in other mountain areas of the world, is not a new phenomenon. Absence of livelihood opportunities in Uttarakhand hills is among the main causes of migration. To address the issue of local employment for rural folks, the 'enhancing livelihood activities' is a major component under the project. Besides this, as all the project interventions including construction activities are being implemented by villagers it selves, thus these activities creates job opportunities for them within their GPs. The status of labor Man days generated through different project components is given below;

#### Status of Component wise Labour Man-days generated

S. No	Component activity Up To Month (In Lakh)	Expenditure on Labour (In Lakh)	Skill wise Labour Man-Days Generated(No. of Days)			Total Labour Man-Days Generated(No. of Days)		
			Skilled (Male)	Unskilled		Male	Female	Total
				Male	Female			
1	2	3	4	5	6	7	8	9
1	Agriculture	55.972	0	10177	15265	10177	15265	25442
2	Horticulture	587.5664	1021	114427	135760	22984	135760	158742
3	Livestock	1992.8304	113623	461964	244607	559273	244607	803881
4	Forestry	1320.228	0	168029	252043	168029	252043	420072
5	Drainage Line Treatment & soil Conversation	2964.152	185259	707355	303151	892615	303151	1195765
6	Water Harvesting & Source Sustainability	2648.9972	165562	632145	270920	797710	270920	1068629
7	Road Programme	712.1352	44508	169942	72832	214450	72832	287282
<b>Total</b>		<b>10281.881</b>	<b>509973</b>	<b>2264039</b>	<b>1294578</b>	<b>2665238</b>	<b>1294578</b>	<b>3959813</b>

- 1- In engineering works the expenditure on labour component = 40% of total expenditure, in which skilled = 25% and unskilled = 75% of total labour.
- 2- To calculate gender wise labour, all skilled are considered as male, while under unskilled category, male = 70% & female = 30%
- 3- In Forestry works, the expenditure on labour component = 70% of total expenditure, in which male =40% & female = 60% of total labour.
- 4- In Horticulture works, the expenditure on labour component = 65% of total expenditure, in which male = 40% & female = 60% of total labour.
- 5- Rates of wages are Rs 400/day for skilled labour, while it is Rs220/ day for unskilled labour.

## 4.2. Watershed Treatment and Rainfed Area Development

### 4.2.a Sub Component - Watershed Treatment and Water Source Sustainability

This sub component is focused on construction and rehabilitation of recharge pits, ponds, vegetative structures and other soil conservation structures. The activities like perimeter rehabilitation with Napier and other grasses and Forestry activities (e.g., plantations and nursery

development) are aimed to increase vegetative biomass. Promotion of alternate energy sources (e.g., biogas plants, solar cookers, water mills, and pine briquette production) the activities to reduce biotic pressure on the existing forest.

All the watershed treatment and source sustainability related activities under this sub component are being implemented through GPWDPs. The progress till month under GPWDPs is given below;

**PHYSICAL & FINANCIAL PROGRESS UNDER GRAM PANCHAYAT WATERSHED DEVELOPMENT PLAN (GPWDP) - TILL SEPTEMBER 2019**

Sl. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
<b>2</b>	<b>Watershed Treatment and Rainfed Area Development</b>						
<b>2.1</b>	<b>Watershed Treatment &amp; Source Sustainability</b>						
<b>2.1.1</b>	<b>Watershed Treatment (sub projects)</b>						
<b>2.1.1.01</b>	<b>Agriculture</b>						
2.1.1.01.01	Agriculture minikit (0.04 Ha.)	No.	1482	0	0	0	1482
2.1.1.01.02	Agri/Horti. tools	No.	1455	0	0	0	1455
2.1.1.01.03	Terrace repair/Vegetative field boundary	Cum	19357	259.76	0	259.76	19617
	<b>Financial Sub Total -2.1.1.01(Rs. In Lakh.)</b>		<b>170.43</b>	<b>0.51</b>	<b>0.00</b>	<b>0.51</b>	<b>170.94</b>
<b>2.1.1.02</b>	<b>Horticulture</b>						
2.1.1.02.01	Bio Compost	No.	432	1	0	1	433
2.1.1.02.02	Vermi Compost	No.	72	1	0	1	73
2.1.1.02.03	High value crops minikit (0.04Ha.)	Ha.	21.15	0	0	0	21.15
2.1.1.02.04	Homestead plantation (250 Plant)	Ha.	1312	54.66	0	54.66	1367
2.1.1.02.05	Orchard Development (250 Plant/ha.)	Ha.	331	10	0	10	329
2.1.1.02.06	Poly House	No.	81	0	0	0	81
2.1.1.02.07	Poly Tunnel	No.	21	0	0	0	21
	<b>Financial -2.1.1.02 (Rs. In Lakh.)</b>		<b>569.73</b>	<b>9.11</b>	<b>0.00</b>	<b>9.11</b>	<b>578.83</b>
<b>2.1.1.03</b>	<b>Livestock</b>						
2.1.1.03.01	Animal Shelter/ Sheds	No.	4910	154	7	161	5071



SI. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
2.1.1.03.02	Mangers	No.	2240	29	3	32	2272
2.1.1.03.03	Animal chari	No.	764	7	0	7	771
2.1.1.03.04	Napier Crop Border Plantation	Ha.	532	13	0	13	545
2.1.1.03.05	Forage row plantation	Ha.	154	0	0	0	154
2.1.1.03.06	Chaff Cutter	No	239	0	0	0	239
	<b>Financial Sub Total -2.1.1.3 (Rs. In Lakh.)</b>		<b>3378.12</b>	<b>58.00</b>	<b>0.51</b>	<b>58.51</b>	<b>3436.63</b>
<b>2.1.1.04</b>	<b>Forestry</b>						
<b>2.1.1.04.01</b>	<b>Afforestation (1000 plants/ ha.)</b>						
2.1.1.04.01.01	Advance soil work	Ha.	3749	0	0	0	3749
2.1.1.04.01.02	Plantation	Ha.	3597	25	0	25.0	3622
2.1.1.04.01.03	Maintenance - 1st Year	Ha.	2098	0	27	27	2125
2.1.1.04.01.04	Maintenance - 2nd Year	Ha.	616	585	0	585	1201
<b>2.1.1.04.02</b>	<b>Nursery establishment (Farmer nursery(10,000 plants)</b>	<b>No.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>2.1.1.04.03</b>	<b>Assisted Natural Regeneration of Oak Areas</b>						
2.1.1.04.03.01	Advance soil work	Ha.	113	0	0	0	113
2.1.1.04.03.02	Plantation	Ha.	95	0	0	0	95
2.1.1.04.03.03	Maintenance - 1st Year	Ha.	85	0	0	0	85
2.1.1.04.03.04	Maintenance - 2nd Year	Ha.	30	8	0	8	38
	<b>Financial Sub Total 2.1.1.4(Rs. In Lakh.)</b>		<b>1969.52</b>	<b>1.81</b>	<b>0.00</b>	<b>1.81</b>	<b>1971.33</b>
<b>2.1.1.05</b>	<b>Energy conservation</b>						
2.1.1.1.05.01	Bio Gas Plant	No.	46	0	0	0	46
2.1.1.1.05.02	Solar lantern	No.	6949	120	0	120	7069
2.1.1.1.05.03	Community Solar street panel	No.	5349	0	0	0	5349

Sl. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
2.1.1.1.05.04	Pine Briquett machine	No.	20	0	0	0	20
2.1.1.1.05.05	Pine briquett stove	No.	0	0	0	0	0
2.1.1.1.05.06	Solar Cooker	No.	1634	0	0	0	1634
2.1.1.1.05.07	Gharat renovation for power generation	No.	10	0	0	0	10
2.1.1.1.05.08	Energy efficient Chulhas	No.	0	0	0	0	0
	<b>Financial Sub Total 2.1.1.5(Rs. In Lakh.)</b>		<b>1482.39</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>1482.39</b>
<b>2.1.1.06</b>	<b>Drainage Line Treatment&amp; Soil Conservation</b>						
<b>2.1.1.1.06.1</b>	<b>Drainage Line Treatment</b>						
2.1.1.06.1.01	Construction of dry stone check dam	Cum	107236	1155	0	1155	108392
2.1.1.06.1.2	Construction of crate wire check dam	Cum	251321	2474	125	2599	253919
2.1.1.06.1.3	River / Nala training work						
2.1.1.06.1.3.1	Construction of spur	Cum	818	172	0	172	990
2.1.1.06.1.3.2	Retaining Wall	Cum	134053.8	4446.5	189.9	4636.37	138690.1
2.1.1.06.1.4	Construction of Cross Barrier	Cum	423	0	0	0	423
<b>2.1.1.1.06.2</b>	<b>Soil Conservation</b>						
2.1.1.06.2.1	Construction of vegetative check dam	No.	2959	150	0	150	3109
2.1.1.06.2.2	Vegetative treatment	Sqm	15102	314	0	314	15416
2.1.1.06.2.3	Road Side erosion control	Cum	63776.95	1113.5	0	1113.47	64890.42
2.1.1.06.2.4	Land Slide Treatment	Cum	21811.37	351.09	0	351.09	22162.46
2.1.1.06.2.5	Diversion drain	Km	9.6	0.5	0.0	0.5	10.0

Sl. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
	<b>Financial Sub Total 2.1.1.6(Rs. In Lakh.)</b>		<b>7728.52</b>	<b>62.59</b>	<b>0.48</b>	<b>63.07</b>	<b>7791.59</b>
<b>2.1.1.07</b>	<b>Water Harvesting &amp; Source Sustainability</b>						
<b>2.1.1.07.1</b>	<b>Water Harvesting</b>						
2.1.1.1.07.1.01	Irrigation Channel	Km	174.31	1.481	0.51	1.991	176.30
2.1.1.1.07.1.02	HDPE Irrigation Pipeline	Km	204.239	13.8	0	13.8	218.039
2.1.1.1.07.1.03	Irrigation Tank	No.	953	33	6	39	992
2.1.1.1.07.1.04	Roof Water Harvesting Tank	No.	7787	186	0	186	7973
2.1.1.1.07.1.05	LDP Tank	No.	301	15	0	15	316
2.1.1.1.07.1.06	Solar water lifting Pump with solar panels	No.	6	0	0	0	6
2.1.1.1.07.1.07	Pre Fabricated Geo Membrane Water Harvesting Tank	No.	56	0	0.0	0	56
2.1.1.1.07.1.08	Village Irrigation Pond	No.	29	2	1	3	32
<b>2.1.1.1.07.2</b>	<b>Source Sustainability</b>						
2.1.1.1.07.2.01	Dugout Ponds (Village Pond)	No.	309	1	0	1	310
2.1.1.1.07.2.02	Recharge pit	Cum	23323	284	0	284	23607
2.1.1.1.07.2.03	Digging of trenches	No.	297113	275	0	275	297388
2.1.1.1.07.2.04	Renovation of existing Tal/Khal	No.	4197	75	0	75	4272
2.1.1.1.07.2.05	Renovation of existing Naula	No.	106	4	0	4	110
	<b>Financial Sub Total 2.1.1.7 (Rs. In Lakh.)</b>		<b>7330.02</b>	<b>101.16</b>	<b>4.22</b>	<b>105.37</b>	<b>7435.39</b>
<b>2.1.1.08</b>	<b>Road Programme</b>						
2.1.1.08.01	Rural road improvement	Km	326.61	4.696	0	4.696	331.30
2.1.1.08.02	Construction of small Bridges	No.	445	19	0	19	464
	<b>Financial Sub Total 2.1.1.8 (Rs. In Lakh.)</b>		<b>1942.34</b>	<b>28.46</b>	<b>0.00</b>	<b>28.46</b>	<b>1970.80</b>
	<b>Financial Total 2.1.1(Rs. In Lakh.)</b>		<b>24571.06</b>	<b>261.63</b>	<b>5.21</b>	<b>266.84</b>	<b>24837.90</b>

SI. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
<b>2.1.1.2</b>	<b>MWS Plan</b>						
<b>2.1.1.2.1</b>	<b>Inter GP Fund Activities as per MWS Plans-In RF Areas</b>						
<b>2.1.1.2.1.01</b>	<b>Afforestation</b>						
2.1.1.2.1.01.01	Advance soil work	Ha.	45	134	0	134	179
2.1.1.2.1.01.02	Plantation	Ha.	25	134	5	139	164
	Digging of trenches	No.	0	0	0	0	0
2.1.1.2.1.01.03	Maintenance - Ist Year	Ha.	0	0	27	27	27
2.1.1.2.1.01.04	Maintenance - 2nd Year	Ha.	0	0	0	0	0
	<b>Sub Total</b>		<b>36.17</b>	<b>1.74</b>	<b>0.00</b>	<b>1.74</b>	<b>37.91</b>
<b>2.1.1.2.1.02</b>	<b>Assisted Natural Regeneration of Oak Areas</b>						
2.1.1.2.1.02.01	Advance soil work-ANR	Ha.	235	97	0	97	332
2.1.1.2.1.02.02	Plantation-ANR	Ha.	115	197	20	217	332
	Digging of trenches	No.	0	0	0	0	0
2.1.1.2.1.02.03	Maintenance ANR - Ist Year	Ha.	0	0	30	30	30
2.1.1.2.1.02.04	Maintenance ANR - 2nd Year	Ha.	0	0	0	0	0
	<b>Sub Total</b>		<b>71.08</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>71.08</b>
<b>2.1.1.2.1.03</b>	<b>Forest Fire Management</b>						
2.1.1.2.1.03.01	Village level training on Fire Mgmt.	No.	0	0	0	0	0
	<b>Sub Total</b>		<b>00</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>00</b>
<b>2.1.1.2.1.04</b>	<b>Soil and Water conservation</b>						
2.1.1.2.1.04.01	Construction of dugout Pond	No.	25	0	0	0	25
2.1.1.2.1.04.02	Recharge pits	cum	4226	0	0	0	4226
2.1.1.2.1.04.03	Digging of trenches	No.	17337	1000	400	1400	18737
2.1.1.2.1.04.04	Renovation of existing Tal/Khauila	No.	87	10	49	59	146

SI. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
	<b>Sub Total</b>		<b>119.57</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>119.57</b>
<b>2.1.1.2.1.05</b>	<b>Drainage Line Treatment</b>						
2.1.1.2.1.05.01	Construction of vegetative check dam	No.	0	0	10	10	10
2.1.1.2.1.05.02	Construction of dry stone check dam	Cum	8366	0	0	0	8366
2.1.1.2.1.05.03	Construction of crate wire check dam	Cum	3868	0	0	0	3868
2.1.1.2.1.05.04	Protection wall	Cum	610	0	0	0	610
2.1.1.2.1.05.05	Diversion drain	Km.	0	0	0	0	0
	<b>Sub Total</b>		<b>129.67</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>129.67</b>
	<b>Total 2.1.1.2.1</b>		<b>356.49</b>	<b>1.74</b>	<b>0.00</b>	<b>1.74</b>	<b>358.23</b>
<b>2.1.1.2.2</b>	<b>Inter GP Fund Activities as per MWS Plans-Within GP area (Additional activities for water source sustainability)</b>						
<b>2.1.1.2.2.01</b>	<b>Afforestation</b>						
2.1.1.2.2.01.01	Advance soil work	Ha.	7	29	23.1	52.1	59
2.1.1.2.2.01.02	Plantation	Ha.	2	34	23.1	57.1	59
	Digging of trenches	No.	0	0	0	0	0
2.1.1.2.2.01.03	Maintenance - Ist Year	Ha.	0	0	0	0	0
2.1.1.2.2.01.04	Maintenance - 2nd Year	Ha.	0	0	0	0	0
	<b>Sub Total</b>		<b>2.89</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>2.1.1.2.2.02</b>	<b>Assisted Natural Regeneration of Oak Areas</b>						
2.1.1.2.2.02.01	Advance soil work-ANR	Ha.	55	0	0	0	55
2.1.1.2.2.02.02	Plantation-ANR	Ha.	0	55	0	55	55
	Digging of trenches	No.	0	0	0	0	0
2.1.1.2.2.02.03	Maintenance ANR - Ist Year	Ha.	0	0	0	0	0

SI. No.	Component Activity	Unit	Progress till previous year	2019-20			Cumulative progress since inception of the project
				Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8
2.1.1.2.2.02.04	Maintenance ANR - 2nd Year	Ha.	0	0	0	0	0
	<b>Sub Total</b>		<b>5.65</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>
<b>2.1.1.2.2.03</b>	<b>Soil and Water conservation</b>						
2.1.1.2.2.03.01	Construction of dugout Pond	No.	105	21	0	21	126
2.1.1.2.2.03.02	Recharge pit	Cum	3523	502	0	502	4025
2.1.1.2.2.03.03	Digging of trenches	No.	96462	10080	0	10080	106542
2.1.1.2.2.03.04	Renovation of existing Tal/Khaua	No.	1468	272	27	299	1767
	<b>Sub Total</b>		<b>385.92</b>	<b>5.92</b>	<b>0.00</b>	<b>5.92</b>	<b>391.84</b>
<b>2.1.1.2.2.04</b>	<b>Drainage Line Treatment&amp; Soil Conservation</b>						
2.1.1.2.2.04.01	Construction of vegetative check dam	No.	605	0	0	0	605
2.1.1.2.2.04.02	Construction of dry stone check dam	Cum	20245.6	1747.6	0	1747.59	21993
2.1.1.2.2.04.03	Construction of crate wire check dam	Cum	28075.6	2138	0	2138.02	30214
2.1.1.2.2.04.04	Protection wall	Cum	3055	67	0	67	3122
2.1.1.2.2.04.05	Diversion drain	Km.	0	0	0	0	0
	<b>Sub Total</b>		<b>592.24</b>	<b>8.77</b>	<b>0.00</b>	<b>8.77</b>	<b>601.01</b>
	<b>Total 2.1.1.2.2</b>		<b>986.70</b>	<b>14.69</b>	<b>0.00</b>	<b>14.69</b>	<b>1001.39</b>
	<b>Total 2.1.1.2</b>		<b>1343.19</b>	<b>16.43</b>	<b>0.00</b>	<b>16.43</b>	<b>1359.62</b>
	<b>Grand Total- 2.1.1Watershed Treatment (Sub-Project)</b>		<b>25915.2</b>	<b>277.1</b>	<b>5.2</b>	<b>282.3</b>	<b>26197.5</b>

#### 4.2.b. Sub Component -Rainfed Area Development

This sub component is mainly focused on promotion of rainwater conservation, climate-smart agricultural practices, and on-farm integrated crop management. In the irrigated areas, the project is promoting diversification to high-value off-season vegetable crops, adoption of innovative agronomic practices, establishment of greenhouses and tunnels, productivity enhancement of irrigated maize, wheat and other crops, and production of bio-fertilizers and vermi-compost. The Project is also providing support in the horticulture and livestock sectors, including new orchard development, orchard rehabilitation, fodder production, and livestock genetic upgrading. These all

project interventions under this sub component are being carried out through demonstration activities.

Progress under demonstrations is given below;

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					
			Progress till previous year	Financial Year 2019-20				Cumulative progress since inception of the Project
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8	9
	<b>Agriculture &amp; Horticulture demonstrations</b>							
1	Demo. of High Yielding agric. crops (0.2 ha. For rainfed area)	No.	16367	3800	2061	250	2311	18678
2	Adoption support for High yielding agric. crops (0.06 ha for rainfed area)	farmer	42395	16900	6687	850	7537	49932
3	Demonstration for high yielding vegetable crops (0.08 ha. for irrigated area)	No.	25817	1650	860	336	1196	27013
4	Orchard Development (250 plant/ha.)	Ha.	2113	535	237	0	237	2350
5	Seeds and Seedlings (High value crop demonstration)	Ha.	1062	0	0	0	0	1062
6	Polyhouses	No.	1874	289	111	45	156	2030
7	Poly tunnels	No.	5273	1000	242	65	307	5580
8	Vermi compost Demonstration	No.	4473	830	104	60	164	4637
9	Improved agriculture/horticulture implements	LS	LS	LS	LS	LS	LS	LS
	<b>Animal Husbandry Programme</b>							
	<b>Livestock Improvement</b>							
10	Natural Breeding Centres	No.	211	27	0	0	0	211
11	Natural Breeding Centres-Goat	No.	66	105	4	0	4	70
12	Paravet (AI services)	No.	34	7	0	0	0	34
13	Mass A.I.	No.	1000	LS	0	0	0	1000
14	Veterinary camps	No.	662	126	4	0	4	666
	<b>Stall feeding Program</b>							
14	Animal shelter /sheds	No.	1953	309	46	12	58	2011
15	Manger	No.	2364	350	85	1	86	2450

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					
			Progress till previous year	Financial Year 2019-20				Cumulative progress since inception of the Project
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8	9
16	Animal Chari	No.	1619	215	15	0	15	1634
	<b>Fodder Production Programme</b>							
17	Fodder Minikit	NO.	15527	3500	1195	500	1695	17222
18	Napier crop border plantation	"000" mtrs	2460	665	468	0	468	2927

### 4.3. Enhancing Livelihood Opportunities

#### 4.3.a Sub Component - Agribusiness Support

To make hill agriculture a profitable venture, through marketing of surplus agriculture and horticulture produces, this sub component is focused on formation of Farmers' Interest Groups (FIGs) and their Farmers' Federations (FFs), water user groups and building capacity of FIGs and FFs in business planning and supply chain development, including input supply and value addition. The project is supporting farmers through hiring of Agribusiness Support Organizations (ABSOs) for providing market oriented extension services and marketing support, including market intelligence and brand promotion. The progress under this sub component is given below;

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					
			Progress till previous year	Financial Year 2019-20				Cumulative progress since inception of the Project
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8	9
	<b>Agri-business Support</b>							
1	ABSO Support (6 nos.)	No.	6	6	6	6	6	6
2	Training at Unit level & division level	Trgs. No.	242	76	16	2	18	260
3	Exposure visit - within state	Visits.No.	63	22	0	3	3	66
4	Exposure visit - outside state	Visits.No.	27	23	0	1	1	28
5	High Yielding Agric/Horti. Crops	Ha.	2158	1141	115.5	47.4	163	2321



Till the month 1,358 FIGs have been formed by constituting 15,006 farmer Households of the project area. To establish viable agribusiness model, 577 FIGs in 8 project divisions have been constituted in 16 Farmer Federations (FFs). Detail of FFs is given below;

Division	No of Federation	No of FIGs grouped	No of Farmers/HHs grouped
Almora	2	49	165
Bageshwar	2	80	754
Pithoragarh	2	105	985
Vikasnagar	3	47	757
Thayur	1	14	183
Pauri	2	193	1695
PMU	1	28	219
Rudraprayag	3	61	1927
<b>Total</b>	<b>16</b>	<b>577</b>	<b>6685</b>

#### 4.3.b Sub Component - Support for Vulnerable Groups

To finance entrepreneurial activities for Vulnerable Groups in the targeted GPs, including landless, vulnerable women, and transhumance, the project is focusing on promoting different livelihood options especially their left out traditional occupations. The Project also has a dedicated transhumant action plan, which will have an emphasis on livestock support. The progress under this sub component is as under;

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					Cumulative progress since inception of the Project
			Progress till previous year	Financial Year 2019-20				
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
	<b>Income Generation Activities</b>							
1	Funds for Vulnerable Groups: Individuals	No.	4007	1600	5	1	6	4013
2	Funds for Vulnerable Groups : Groups	No.	570	290	0	0	0	570

#### 4.3.c Sub-Component - Consolidation of Gramya-I activities

It would repair the damaged assets created in Gramya-I and strengthen the business planning and management capacity of 27 FFs formed under Gramya I to develop them as sustainable producer businesses. The support for agribusiness development will be provided by local NGOs.

## 4.4 Knowledge Management and Project Coordination

### 4.4.a Sub-component - Knowledge Management

Under this sub component, the focus is given on;

- Training and dissemination activities for targeted local institutions and the Gol-supported programs
- Establishment of a Center of Excellence in Watershed Development.
- Information and educational exchanges among and between the various Gramya II stakeholders
- Project supervision through an ICT-based management information system (MIS)
- Hydrology monitoring stations to build a comprehensive dataset at the micro watershed level and
- Social accountability through participatory monitoring exercises (PMEs), social audits and grievance redress mechanisms.

The progress under this sub component is given below;

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					
			Progress till previous year	Financial Year 2019-20				Cumulative progress since inception of the Project
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8	9
<b>4. Knowledge Management and Project Coordination</b>								
1	Training at Village Level (one day 35 participants)	No.	4396	1246	38	24	62	4458
2	Training at Division level (3-day trg 100 Participants)	No.	505	82	20	0	20	525
3	Within state training	LS	54	LS	0	0	0	54
	<b>Exposure visits</b>							
4	Within State 3 days (25 Participants per visit)	No.	320	LS	2	0	2	322
5	Outside State 5 days (25 Partici. per visit)	No.	81	LS	0	0	0	81
	<b>Capacity Building of Staff</b>							
6	Training of staff (Participants)	No.	2108	LS	35	1	36	2144
7	Exposure visit of staff - outside state (visits)	No.	33	LS	1	1	2	35
8	Exposure visit of staff - within state (visits)	No.	71	LS	38	24	62	74

Sl. No.	Component/ Sub-Component	Unit	PHYSICAL					
			Progress till previous year	Financial Year 2019-20				Cumulative progress since inception of the Project
				Annual Target	Progress till last month	Progress during the month	Progress up to the month	
1	2	3	4	5	6	7	8	9
	<b>Workshops</b>							
9	National /State Level workshops	No.	12	4	0	0	0	12
10	WMD/PD level workshop/Project Staff (events)	No.	158	48	8	4	12	170
11	Division level workshops	No.	396	102	32	10	42	438
12	Unit level workshops	No.	1614	312	106	19	125	1739
13	Village level workshops	No.	8588	1311	739	20	759	9347
14	Special workshops at WMD/PD/DPD level	No.	128	LS	12	0	12	140

#### 3.4.b Sub component - Project Coordination

This sub component is focused on;

- Incremental expenditures incurred by the Project Implementing Entity for Project implementation, management and supervision
- Financial management and annual internal and external audits
- Incremental contractual staff salaries (other than consultants), excluding salaries of civil servants deputed to the Project and
- Dissemination of Project-related information.

The Project received a sanction of retroactive expenditure since 1<sup>st</sup> June, 2013 to 31<sup>st</sup> May, 2014 for formulation and preparatory works. The Project became effective since 15<sup>th</sup> of July, 2014.

## **ANNEXURE -1**

### **UPDATED PROJECT PROGRESS V/S TIMELINE**

- ❖ The Project was formulated in FY 2013-14
- ❖ The Project became effective since 15<sup>th</sup> July, 2014
- ❖ Software for Financial Management Information System (FMIS) was developed in-house. The Financial progress reports are generated regularly using FMIS.
- ❖ The Project web site <http://wmduk.gov.in/UDWDP.html> is operational. All Project related documents, reports, government order, important circulars, AWP, MPRs and Procurement details are uploaded/ updated and available in public domain.
- ❖ To overcome the field level staffing outsourcing of MDT, Junior Engineers and support staff have been done in FY 2015 with the approval of World Bank and Govt. of Uttarakhand.
- ❖ Project Operational Manual with all the technical and financial information/ processes/ procedures is in place and being followed.
- ❖ Transhumant Plan for the Project is approved and is in place.
- ❖ Social, Knowledge Management, Environment, Watershed, GIS, MIS, Agribusiness, Agronomy Consultants/ Experts are in place.
- ❖ Project Internal Auditor are in place.
- ❖ The Field NGO-Garhwal has been contracted on 2<sup>nd</sup> March, 2015.
- ❖ The Field NGO-Kumaon has been contracted on 2<sup>nd</sup> March, 2015
- ❖ The Partner NGO- Rudraprayag has been contracted on 2<sup>nd</sup> March, 2015
- ❖ External M&E Consultants has been contracted on 25th June, 2016
- ❖ External Hydrological Consultant has been contracted on September, 2016.
- ❖ Six ABSOs are in place (3 in Kumaon and 3 in Garhwal).
- ❖ In house 'Pratyaksh app' has been developed and being used regularly to obtain the field level created assets on GIS platform as a tool of evidence based monitoring.
- ❖ Certification Audit (AG Audit) of FY 2014-15, 2015-16, 2015-16, 2016-17& 2017-18 has been completed and the reports have been submitted to the Bank.
- ❖ Quarterly Internal Audit of FY 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 has been completed and the Annual Financial Statements, Management Letter have been submitted to the Bank
- ❖ The Post Procurement Review Audit FY 2016-17& 2017-18 (Bank Financial Year) has been conducted.

## ANNEXURE -2

### KEY PERFORMANCE INDICATORS (KPIs) AS PER PROJECT OUTCOME INDICATORS

Sl. No.	PDO level result Indicator	Cumulative Target Values /Description	Progress during the FY (June, 2019)	Cumulative progress since July 2015
1	2	3	4	5
1	<b>Indicator 1 : Increase in water discharge – 25%</b>	Rejuvenate 1530 sides of traditional natural water sources <b>Note:</b> Various soil and moisture conservation interventions – Recharge pits, contour trenches, drainage line treatments and dugout ponds are carried out in the spring shed areas of the various water sources occurring in the selected micro watersheds of the project. <i>External Hydrological Monitoring agency will be concurrently monitoring the various project interventions and its impact on the water discharge of the sample micro watersheds.</i>	<ul style="list-style-type: none"> <li>• 433 existing Tal/ Khal renovated.</li> </ul>	<ul style="list-style-type: none"> <li>• 1,484 treated traditional water sources showed increase in water discharge,</li> <li>• 6,185 existing Tal/ Khal and 110 Naulas renovated.</li> </ul>
2	<b>Indicator 2 : Increase in biomass. – 20%</b>	21,734 ha. Plantations- Forestry, Fodder, Horticulture orchards etc. <b>Note:</b> The community/ Gram Panchayats are motivated to sustainably the natural resources in the selected micro watersheds of the project. They are motivated to increase the green cover in the Gram Panchyats and the forests nearby through various plantations. External M&E Consulting Agency will measure the baseline, mid-term and at the final stages of the project the increase in bio-mass.	<ul style="list-style-type: none"> <li>• 795 ha. Vegetative cover increased.</li> </ul>	<ul style="list-style-type: none"> <li>• 8,886 ha. Vegetative cover increased (about 41% of targeted).</li> </ul>
3	<b>Indicator 3: Increase in rain-fed area under irrigation – irrigated 5262 ha. To 7800 ha</b>	Increase Irrigated agriculture area 5,262 ha. to 7,800 ha (Cropping intensity 170 % to 250 %) <b>Note:</b> The primary focus of the Project is to increase the productivity of the rain-fed agriculture. With this objective efforts are made in the project to cover as much rain-fed area as possible to irrigated. The various interventions carried out by the community through sensitization are irrigation tanks, roof water harvesting tanks, LDPE tanks, irrigation pipe lines, irrigation channels, solar pumps for lifting of water from lower elevation to agriculture lands on higher elevation and village pond construction.	<ul style="list-style-type: none"> <li>• Increase in gross irrigated area – 369 ha</li> <li>• Water holding capacity increased; <ul style="list-style-type: none"> <li>○ through different storage structures – 1,587 cum for irrigation.</li> <li>○ through dugout ponds and other percolation structures - 17,557 cum.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Increase in gross irrigated area – 6,356 ha</li> <li>• Water holding capacity increased; <ul style="list-style-type: none"> <li>○ through different storage structures – 49,273 cum for irrigation.</li> <li>○ through dugout ponds and other percolation structures - 5,25,624 cum to increase soil moisture regime, in</li> </ul> </li> </ul>

Sl. No.	PDO level result Indicator	Cumulative Target Values /Description	Progress during the FY (June, 2019)	Cumulative progress since July 2015
1	2	3	4	5
				rainfed areas.
4	<b>Indicator 4: Increase in productivity in irrigated – 50% and rainfed crops– 20%</b>	<p><b>Irrigated area</b></p> <ul style="list-style-type: none"> <li>90% farmers are projected to adopt and sustained the efficient irrigated crop production technologies</li> <li>18950 demonstration in Irrigated area</li> <li>15,500 poly house and poly tunnel, off-season high value crops and major vegetables in 1066 villages.</li> </ul> <p>Note: Demonstrations on various integrated crop management practices are carried out to educate the farmers. Farmers are also provided seeds of high yielding varieties, technical inputs – poly house and poly tunnels, mulching, pre and post cultivation practices. And also motivated to take up cultivation of off-season high value vegetable/ cash crops, which can yield higher returns to the farmers.</p>	<p><b>Irrigated area</b></p> <ul style="list-style-type: none"> <li>1196 nos. demonstration in irrigated area.</li> <li>Input support for high value crops in 163 ha.</li> </ul>	<p><b>Irrigated area</b></p> <ul style="list-style-type: none"> <li>43% farmers have adopted efficient irrigated crop production technologies.</li> <li>27,013 demonstrations in irrigated area.</li> <li>7,712 Poly house and Poly tunnels.</li> <li>Input support for off-season high value crops in 2,321 ha. benefitting 15,321 farmers.</li> </ul>
	<b>Indicator 4: Increase in productivity in irrigated – 50% and rainfed crops– 20%</b>	<p><b>Rainfed area</b></p> <ul style="list-style-type: none"> <li>70% farmers are projected to adopt and sustain in situ soil and moisture practices along with efficient crop production technologies</li> <li>Rainfed area 34695 ha. to 37157 ha. (7% increased due to shift fallow lands into cropping) promoting improved resource conservation cum production technology- 14300 demonstrations</li> <li>Terrace repair 901,000 no.</li> </ul> <p>Note: Demonstrations on various rain-fed agriculture crop management practices are carried out to educate the farmers. Farmers are also provided seeds of high yielding varieties, technical inputs – line showing, mulching, pre and post cultivation practices.</p>	<p><b>Rainfed area</b></p> <ul style="list-style-type: none"> <li>2,311 no. of demonstrations done.</li> <li>Adoption of high value crops in 452 ha. and benefitting 7,537 farmers.</li> </ul>	<p><b>Rainfed area</b></p> <ul style="list-style-type: none"> <li>58% farmers have adopted in-situ soil and moisture practices along with efficient crop production technologies</li> <li>18,678 no. of demonstrations done.</li> <li>Adoption of high value crops in 2,996 ha. covering 1057 villages and benefitting 49,932 farmers.</li> <li>Agriculture terraces repaired in 19,617 cum.</li> <li>2,208 ha fallow land shifted to horticulture and agriculture cultivation.</li> </ul>
5	<b>Indicator 5: Direct project beneficiaries , - 80% of which % of female –</b>	<ul style="list-style-type: none"> <li>100% farmers adopt efficient farming practices in irrigated and rainfed area</li> <li>14,571 farmers benefited through agribusiness</li> <li>33,208 household benefited through animal husbandry improvement</li> <li>20,333 vulnerable household would be</li> </ul>		<ul style="list-style-type: none"> <li>Approx 68% farmers adopted efficient farming practices through demonstration and adoption practices</li> </ul>

SI. No.	PDO level result Indicator	Cumulative Target Values /Description	Progress during the FY (June, 2019)	Cumulative progress since July 2015
1	2	3	4	5
	50%	<p>benefited through IGA of which 50% women beneficiaries.</p> <p>Note: The objective of the Project is to provide benefits to all the community members/ primary stakeholders in the project. Through the project interventions, efforts are made to increase the agriculture productivity, so that the agriculture can become a remunerative option. The poor/ landless households in the project are provided training and supports for various income generating activities.</p>	<ul style="list-style-type: none"> <li>•315 farmers grouped in 9 FIGs.</li> </ul>	<ul style="list-style-type: none"> <li>•15,321 farmers benefited through agribusiness initiative. 1,367 FIGs formed.</li> <li>•About 29,100 HHs benefited through animal husbandry improvement</li> <li>•4,013 individual and 570 group total 7,046 vulnerable household benefited through IGA of which 40% are women beneficiaries.</li> </ul>

### ANNEXURE -3

#### STATUS OF COMPLIANCE OF AIDE-MEMOIRE IMPLEMENTATION REVIEW AND SUPPORT MISSION (OCTOBER 2018)

SN.	Key Action	Date	Respon sibility	Action Taken
1	Complete hiring Lead Technical Agency for Agribusiness	Jan 15, 2019	<b>PMU</b>	The EOI for the firms has been given. /The Technical and Financial Evaluation is ongoing.
2	Develop standardized templates for agribusiness interventions – including criteria for selection of crops, crop planning for farmers, post-harvest interventions and assessment of proposals by ABSOs.	Dec 30, 2018	<b>PMU</b>	Templates has been standardized and circulated to ABSOs.
3	Assess interventions by ABSOs and scale up successful interventions.	Dec 30, 2018	<b>PMU</b>	The ABSOs interventions are constantly being analyzed and ways and means of scaling up are being discussed at various level.
4	Standardized data collection and reporting on impact indicators: additional acreage brought under market-linked commodities; additional traded volumes; number of market linkages that have fructified through project efforts, along with traded volumes; and additional price realization through market linkages; and volume and value of processing opportunities developed through project interventions	Dec 30, 2018	<b>PMU</b>	Forms for data collection and reporting of indicators have been developed.



## ANNEXURE -4

### SUCCESS STORIES

#### *Rejuvenation of Navlaya Naula through Community Participation*

#### *A success story of Water Rejuvenation in Village Sanglakoti, District Pauri Garhwal*

Village Sanglakoti is located in the microwatershed Bhaidgaon of development block Ekeshwar which is one of the most adversely affected development blocks in terms of out-migration. The population of the village has reduced from 144 to only 61 households in the last three decades. As a result many agricultural fields were left uncultivated and water sources started drying up. The locals started getting a regular water supply through pipelines and the traditional **Navlayan**aula; a traditional water source started drying up. The water from the *Navlaya* water source was considered auspicious and was used for wedding rituals in the village.

The ongoing World Bank funded project Gramya-II was introduced in this village, initially the people were told about the objectives of this project. Since water source rejuvenation was one of the important components of watershed treatment activities to be implemented by the Gram Panchayat, villagers especially the women folk in their Women Aam Sabha meeting decided to rejuvenate the *Navlayan*aula. To begin with the Jai Koteshwar Samiti were motivated to dig up 100 recharge pits of size 2.00m x 1.50m x 1.30m in the upper catchment of the *Navlaya* water source in the summers of the year 2016. To the joy and surprise of the villagers after one rainy season, water emerged in this water source in January 2017.

Emboldened by this result the villagers have decided to revisit their Gram Panchayat Watershed Development Plan and use more of the allocated budget on rejuvenation of the *Navlaya* water source. This year they plan to dig 25 more recharge pits and 800 contour trenches in its upper catchments. The sensitisation of the locals especially women towards sustainability of the water sources has resulted in the rejuvenation of *Navlaya*.

-----

## *Producing green gold from the fallows: A success story from the hills of Uttarakhand-*

### **DIVISION PAURI- GRAM PANCHAYAT SANGLAKOTI**

In the remote hills of state of Uttarakhand there is a silent revolution taking place where women through hard work and labour are working to produce green gold from the abandoned agriculture lands. The National Population Census, 2011 reports that the Pauri district is showing -1.41% decadal decrease in population, it is one of the worst hill district of Uttarakhand facing migration. 90% of the agriculture land in these areas is rain-fed, the land holdings are very small and fragmented, leading to low agriculture productivity. As a result farmers are leaving agriculture practices and most of the agriculture land are lying fallow.



**Status of the abandoned land before intervention**

In the Ekeshwar Block of Pauri district a World Bank funded Uttarakhand Decentralized Watershed Development Project Phase-II popularly known as Gramya is being implemented. The Gramya Project mobilized women in Gram Panchayat Sanglakoti to take up agriculture in the 6 ha. abandoned agriculture land by organising meetings of the stakeholders despite initial hiccups, the team finally succeeded in persuading them to begin agriculture practices on this land. 32 women were mobilized into 3 women Farmers Interest Groups (FIGs) in the year 2015-16. Initially 3 ha. land was taken up for cultivation purposes as most of the land was covered with weeds and bushes, there was a lot of labour required to clear this land and make it ploughable but these gritty women did not give up. Also despite a lot of damage by the wild animals which is one of the main cause for abandoning agriculture practices the production was satisfactory enough to motivate these women to crop again. They grew wheat, garlic, ginger and turmeric crop on this land and had a first harvest 10.50 qtls of wheat in 0.50 ha land which they used for their own consumption. In addition they harvested 21 qtls., 64 qtls., 72 qtls. of garlic, ginger and turmeric crops respectively.



**Happily harvesting their first produce**

To ensure irrigation, the women put in hard labour to repair a 200 mtr. damaged irrigation canal which was not in use for more than a decade to irrigate these areas. These women groups through their collective

action have also revived the traditional water source (Naula) of the village which had disappeared 15 years back by digging 100 recharge pits in its catchment area. The month of January, 2017 was a cause of celebration as their water source had been revived.

The Gramya Project plans to ensure proper forward and backward linkages so that they can reap maximum profit for their efforts. Gramya is also helping these women secure their agriculture land from crop depredation by helping in fencing the area through convergence with Mahatma Gandhi National Rural Employment Guarantee Scheme.

In the year 2016-17 these women increased the area of cultivation to 6 ha. and have cultivated soyabean, garlic, wheat, ginger and turmeric crops. They have had a collective earning of Rs. 3.81 lakhs which they have shared amongst themselves and saved some in their FIGs accounts. With these earnings Mrs. Pinki Devi has bought herself some jewellery and Mrs. Yashoda Devi has sent her two kids for further studies to nearby Kotdwar town. These seeds of entrepreneurship sown are sure going to bear fruit for these hard working hill women.



Celebrating the revival of the traditional water

.....

## **DISTRICT PAURI- GRAM PANCHAYAT- GADRI, HAMLET – GHAGHANIDHAR**

In Gram Panchayat– Gadri, hamlet – Ghaghanidhar of the Pauri division of the project, the community was encouraged to take up and use the water source situated in the higher reaches for irrigation purpose. Upper catchment of this natural water source has been treated by contour trenches and plantation activities. Drainage line treatment of the main stream has also been carried out. The community initiated and planned a scheme with the help of the project multi disciplinary team to construct irrigation tank and channelizing the water to their agriculture land. The scheme is irrigating about 4.00 ha. agriculture land and 22 households are being benefited. . Excess overflow of water is being utilized for animal *chari*.



## DISTRICT DEHRADUN-GP Sahiya

In 2013, due to floods in river Amlawa, about 10 ha. of agriculture land was destroyed. The project took initiative and constructed River bank protection wall to protect 6 ha. agriculture land which was damaged by floods. Due to gravel and sand deposits the land was not suitable for agriculture farming. The farmers were encouraged to develop pomegranate orchard in this area which was damaged by the flood. The pits for planting were filled with fertile soil and in 2.60 ha. tissue culture plants of variety Bhagwa of Pomegranate were planted in year 2015-16. Mulching and drip irrigation techniques were also adopted in this orchard, the plants growth is good with 90% survival. 8 more households motivated to develop orchards in the same area to develop a cluster pomegranate orchard.



## CONVERGENCE IN ANIMAL HUSBANDRY ACTIVITIES

### Division- Pauri



India is the leading producer of dairy products in terms of volume and dairy development helps the rural poor in having additional regular income. The state of Uttarakhand is one of the difficult and economically developing regions of India. Subsistence agriculture holds very little potential for further development in the project area, primarily because the terrain is covered by hills, land holdings are small and fragmented and most of the population have migrated putting enormous pressure of wild animals on the existing cultivated areas. However, the region has a high potential of dairy activities because of the following facts:

1. Practically, every household in the project area owns livestock, mostly cows.
2. Most of the households own more than one cattle head, so milching is available throughout the year by rotation.
3. Small scale dairies and milk collection centres are coming up on their own throughout the region, competing at times with the state-owned dairy (Anchal), sometimes complementing it by acting as its outreach nodes, and at times servicing areas that are neglected by the government network. Thus, dairying has a high economic potential in the region.

Therefore, to improve the economy of the area, it becomes a binding compulsion to enhance the production of milk through breed improvement as most of the cattle are of local breed and yield of milk per cattle is far below the national average. Project is setting up Natural Breeding Centers but the outcome of those centers is not encouraging. Keeping this in view and also taking consideration of Government's objective to double the income of farmers, it was decided to go for mass Artificial Insemination programme with the help of animal husbandry department. In this programme, it has been decided to cover all breedable animals by 2021 in phased manner. Project is providing essential inputs like hormones, mineral mixture and other inputs whereas the local animal husbandry department is providing semen and services of qualifying doctors to inseminate breedable animals. Two paravets trained by the project have also been roped in to achieve the complete artificial insemination of all breedable animals by 2021. Starting since October 2017 so far, 124 animals have been covered by Artificial Insemination (AI). It is very useful in the area where the availability of quality males (sires) is inadequate and has become the major hurdle in the way of dairy animals' development.

Advantages of AI over natural services with bulls are as follows:

1. Boosts efficiency of bull usage: During natural mating, a bull will donate much more semen than is theoretically needed to make a pregnancy. On the other hand, collected semen can be diluted and extended to make hundreds of semen doses from a single ejaculate which can be easily carried from one place to another, promoting multiple inseminations in females at different locations and semen can be stored for longer periods of time.
2. Cost Effectiveness: No necessity of maintenance of breeding bulls. Hence, the expenditure on maintenance of breeding bull is saved.
3. Checks disease transmission: Natural mating allows the transmission of venereal diseases between males and females. On the other hand, for AI, semen is regularly tested for its quality, possible infections hence allows checking of the spread of certain venereal diseases. Eg: contagious abortion, vibriosis.
4. Promotes Breeding Efficiency: By routine examination of semen after collection and frequent checking on fertility make early detection of inferior bulls and better breeding efficiency is warranted.
5. The progeny testing can be employed at an early age.
6. The semen of an elite bull can be used even after the death of that sire.

7. It makes possible the mating of animals with great variations in body size with no injury to either of the animal.
8. It is useful to inseminate the cows denying to stand or accept the bulls at the time of oestrus.
9. Useful in maintaining the perfect breeding and calving records.
10. Artificial Insemination enhances the rate of conception.
11. **Artificial Insemination when linked to oestrous synchronization programme, can promote a more consistent, uniform calf crop production.**



.....

**ANNEXURE -5**

**DETAILS OF UDWDP PHASE- II PROJECT AREA (LIST OF GRAM PANCHAYATS)**

<b>DEVELOPMENT BLOCK- DHAULADEVI</b>									
	<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>
1	Dhar	19	MantolaGun	37	Bhagartola	55	Walikhet	73	Arasalpad
2	Dhaspar <sup>1</sup>	20	Madam <sup>1</sup>	38	Papoli	56	Velak <sup>1</sup>	74	Aati <sup>1</sup>
3	Dhura <sup>1</sup>	21	Manu	39	Papgad	57	ChamuvaKhal	75	Anoli
4	Khaudi <sup>1</sup>	22	MeltaJol	40	Pokhari <sup>1</sup>	58	Chamtola <sup>1</sup>	76	Gauli
5	Kheti <sup>1</sup>	23	Melgaon	41	Pali <sup>1</sup>	59	Chauda	77	Gunaditya
6	Basan <sup>1</sup>	24	Matkanya <sup>1</sup>	42	Paldi Gunth <sup>1</sup>	60	Chaundungari <sup>1</sup>	78	Garar Malla <sup>1</sup>
7	Basoli <sup>1</sup>	25	Malan	43	Padai	61	Chagethi	79	Garartalla
8	Bajela	26	Thali <sup>1</sup>	44	Raul	62	Chalthi	80	Galli
9	Kachiyola	27	Sindhiya	45	Sukana	63	Faltiya <sup>1</sup>	81	LwetaLadfoda
10	Kabhari <sup>1</sup>	28	Sirola	46	Seli	64	Farakholi	82	Tank
11	Kaphali <sup>1</sup>	29	Diyar Kholi <sup>1</sup>	47	Daseeli <sup>1</sup>	65	Fulai	83	Khatiyola
12	Kola	30	Virkola	48	Dungra	66	Falyant <sup>1</sup>	84	Chausala
13	Kana	31	Chitola	49	Dashaula	67	Tarkot	85	Ladholi <sup>1</sup>
14	Kasermanya	32	Chill	50	DodamPaloli	68	Jajar	86	ChaunaBhanar
15	KunjaGunth	33	Jigolitoli	51	Dauligad <sup>1</sup>	69	NayalDhura	87	KotuliGonth
16	Kumar <sup>1</sup>	34	Bhaisadi	52	Dunar	70	Nainoli		
17	Kalauta	35	Bhaita	53	Dyotoli	71	Nailpad		
18	Mayoli	36	Bhanoli <sup>1</sup>	54	Danya <sup>1</sup>	72	Andoli		
<b>ASSEMBLY CONSTITUENCY- KAPKOT</b>									
<b>DEVELOPMENT BLOCK- KAPKOT</b>									
	<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>
1	Pothing	<b>12</b>	Sama	23	Khaljhuni <sup>1</sup>	34	Kismila <sup>1</sup>		
2	ChiraBagar	13	Saling	24	Harkot <sup>1</sup>	35	KalapairKapdi <sup>1</sup>		
3	Toli	14	Sumgarh	25	Chaura <sup>1</sup>	36	Leeti		
4	Dobad	15	<b>Sooding</b>	26	Pethi	37	BadiPanyali		
5	Dhovati	16	Rikhari <sup>1</sup>	27	KafaliKamera	38	Ramadi		
6	Baghar	17	Gasi <sup>1</sup>	28	Bhanar	39	Keemu		
7	Karmi	18	Lahoor	29	Lathi	40	Gogina		
8	Dulam	19	Soopi	30	Majhkhet <sup>1</sup>	41	Malkh Dugarcha <sup>1</sup>		
9	Barait	20	Tarsal Patiyasar	31	Chucher	42	Rateerkethi		
10	Naukudi	21	Mikila Khalpatta <sup>1</sup>	32	NanchiChetaBagar	43	HamtiKapadi		
11	Seeri	22	Jhuni	33	Sukhchauna				
<b>DISTRICT : PITHORAGARH</b>									
<b>ASSEMBLY CONSTITUENCY- DHARCHULA</b>					<b>ASSEMBLY CONSTITUENCY- DIDIHAT</b>				
<b>DEVELOPMENT BLOCK- MUNSHYARI</b>					<b>DEVELOPMENT BLOCK- DIDHAAT</b>				
	<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>
1	Bansbagar <sup>1</sup>	<b>16</b>	Khatara	28	Chama	44	Marh <sup>1</sup>		
2	KhetBharad	17	Sini	29	BhainsudiTalli	45	Barambachkyudi <sup>1</sup>		
3	Kotuda	18	Rimuniya	30	Khiri	46	Kholimali <sup>1</sup>		

4	Hupli	19	Napad <sup>1</sup>	31	Masmoli	47	Baltir <sup>1</sup>
5	Dhamigaon	20	Hokara	32	Ghingadr	48	Bhadgaon
6	Gunthi	21	Gaula	33	Digauti	49	Atalgaon <sup>1</sup>
7	TallaBhainskot	22	Khoyam	34	Kumalgaon	50	Ranikhet
8	Nachini	23	Dekuna	35	Kukrauli	51	Chupdakheth
9	DhamiPhalyati	24	Tejam	36	Turgoli <sup>1</sup>	52	Varshayat <sup>1</sup>
1	Ghatghorgadi	25	Boragaon <sup>2</sup>	37	Dyokali <sup>1</sup>	53	Bagjiwala
1	Malla Bhainskot <sup>1</sup>	26	Bhanskhal <sup>1</sup>	38	Daulikauli	54	Ghimali
1	Chami Bhainskot <sup>1</sup>	27	Kwitee	39	Leparti <sup>1</sup>	55	Malajhula
1	Bansani <sup>1</sup>			40	SatyalGaon	56	Lejam <sup>1</sup>
1	BathiGunth			41	Sata	57	Almiyagaon <sup>1</sup>
1	Bara			42	Athkhet <sup>1</sup>	58	Goal
				43	Batyuli	59	Dhungeti

**ASSEMBLY CONSTITUENCY- GANGOLIHAT**

**DEVELOPMENT BLOCK- BERINAG**

60	Sunethi <sup>2</sup>	61	Balyaun	62	Lachhima	63	Udisirtoli
----	----------------------	----	---------	----	----------	----	------------

**DISTRICT : PAURI**

**ASSEMBLY CONSTITUENCY- CHAUBATTAKHAL**

**DEVELOPMENT BLOCKS- EKESHWAR & POKHDA**

	GP Name		GP Name		GP Name		GP Name
1	Bharpur <sup>1</sup>	17	MolthiTalli	33	Syoli	49	Sangalakothe
2	Tachhwar	18	Kaghthun	34	Badoli <sup>1</sup>	50	Pand
3	GwarMalla	19	Malai <sup>1</sup>	35	Odgaon <sup>1</sup>	51	Melgaon
4	GwarTalla	20	Chaumasudhar	36	Naie	52	Masmole
5	Katholi	21	Gorli	37	Malkot	53	DivrareMalli
6	Kulasu	22	ChaidharMalla	38	Mald Bara	54	Bhaduli
7	PatalGonth	23	Binjoli <sup>1</sup>	39	Dalmarha	55	Bagdegad <sup>1</sup>
8	Nav	24	Kurkhyal	40	Benti	56	Ghadiyal <sup>1</sup>
9	Raidu <sup>1</sup>	25	Bhadmoli <sup>1</sup>	41	Bondhar	57	Saknaule
10	Simar	26	GuradMalla	42	Chopra	58	Pokhra <sup>1</sup>
11	Uchakot	27	Gurad Talla <sup>1</sup>	43	Salan	59	BeenaMalli
12	Cham Bada	28	Halai	44	Jhalpade	60	Beena Gad
13	Jantoli Talli <sup>1</sup>	29	Kandai <sup>1</sup>	45	Gadri	61	BeenaDhar
14	JantoliMalli	30	Latibuo	46	DuilaTalla	62	Aslot
15	Bamoli	31	Maletha	47	Bhairgaon		
16	Era Malla <sup>1</sup>	32	Raisoli Talli <sup>1</sup>	48	Borgaon		

**DISTRICT : RUDRAPRAYAG**

**ASSEMBLY CONSTITUENCY- KEDARNATH AND AGASTYAMUNI**

<b>DEVELOPMENT BLOCK- JAKHOLI</b>				<b>DEV.B. - UKHIMATH</b>		<b>DEV.B. - AGASTYAMUNI</b>	
	GP Name		GP Name		GP Name		GP Name
1	BashtaBamara	21	Bajwar	41	Andrawani	53	Barmwadi
2	ThatiBamara	22	Panjana	42	Guptkashi	54	Chandrapuri <sup>1</sup>
3	DobhaBamara	23	Bhatwari	43	Bhaisari	55	Dalsingi
4	Dobliya	24	Chopra	44	Sankari	56	Pali
5	Kirora <sup>1</sup>	25	Pauthi	45	Lwani <sup>1</sup>	57	Falai <sup>1</sup>
6	Sem <sup>1</sup>	26	NanadwanGaon	46	Devlimanigram <sup>1</sup>	58	Dadoli
7	Jakholi	27	Chaura <sup>1</sup>	47	Lwara <sup>1</sup>	59	SillaBamangaon
8	Dangwalgaon	28	Khaliyan	48	Tulanga	60	Hat
9	Utarsu	29	Muniyagar	49	Lambgaudi	61	Singhata
10	Munnadevel	30	Pulan	50	PhaliPasalat		
11	Chaka	31	Sirwadi	51	Devar		



12	Dangi	32	Kothiyara	52	Salya		
13	Arkhud	33	Bharanga				
14	Dhankot	34	Mawangaon				
15	Kudiadoli	35	Shishanu				
16	Rayadi	36	Dharkot <sup>1</sup>				
17	Syur	37	Kurchhola				
18	Nag	38	Kapriya				
19	Pujargaon	39	Jakhani				
20	Barsir <sup>1</sup>	40	Taila				

**DISTRICT : UTTARKASHI**

**ASSEMBLY CONSTITUENCY- PURAULA**

DEVELOPMENT BLOCK- PURAULA				DEV.B. - MORI		DEV.B. - NAUGAON	
	GP Name		GP Name		GP Name		GP Name
1	Chandeli	20	Khdkasem	36	Devra <sup>1</sup>	50	Bigradi
2	Panigaon <sup>1</sup>	21	Kandyalgaon	37	GaitwanGaon	51	Gauna <sup>1</sup>
3	Hodeli	22	Naagjhala <sup>1</sup>	38	Haltadi	52	Eedak
4	Binai <sup>1</sup>	23	Mahargaon	39	Pensar <sup>1</sup>	53	Gadoli <sup>1</sup>
5	Kantari	24	Pora	40	Guradi	54	Kanda <sup>1</sup>
6	Sweel <sup>1</sup>	25	Kumola <sup>1</sup>	41	Pokhri	55	Kud
7	Thadung	26	Pujeli <sup>1</sup>	42	Kunara <sup>1</sup>	56	Kotla
8	Chaptadi <sup>1</sup>	27	Korna	43	Dobhalgaon	57	Khansi
9	Netri	28	Nauri	44	Devjani	58	Manjjiyali
10	Karda	29	Raun	45	Kharsadi	59	Kuni
11	Dhakada	30	Westpalli	46	Khedmi	<b>ASSEMBLY CONSTITUENCY- YAMUNOTRI DEV.B. - NAUGAON</b>	
12	Mairana	31	Syalunka	47	Nanai		
13	Thakda	32	BingadheraMalla	48	Bhigsari <sup>1</sup>	60	Guladi
14	Kureda <sup>1</sup>	33	Saundhari	49	RamalGaon	61	Thanki
15	Dhyura	34	Ghudanda			62	Dharali
16	Shrikot <sup>1</sup>	35	Suranuseri			63	Seedak
17	Koti					64	Biyali
18	Devdhunga <sup>1</sup>					65	Bakhrati
19	Madh					66	Koti Banal
						67	Bhani
						68	KwalGaon

**DISTRICT : DEHRADUN**

**ASSEMBLY CONSTITUENCY- CHAKARATA**

DEVELOPMENT BLOCK- CHAKARATA				DEVELOPMENT BLOCK- KALSI			
	GP Name		GP Name		GP Name		GP Name
1	Kandar	17	KandiChamagatha	31	Dilau	46	Panjiya
2	Sawara	18	Kandoi Bandar	32	Timara	47	Sakni
3	Baniyana	19	Chhultad	33	Ara	48	Tilwadi
4	Ravna	20	DhauraPudiya	34	Tipau	49	Kalsi
5	Mehrawana	21	Guthad	35	Chandeu	50	Thana
6	Sujau	22	Lakhamandal	36	Supau	51	Thungara
7	Mohana	23	Myuda	37	JismauGharana	52	Nithala
8	Khatuwa	24	Kunna	38	Ubhreu	53	Rikhad
9	Kharsi	25	Maletha	39	Suryou	54	Birmoi
10	Manuwa	26	Manjgaon	40	Kharaya		
11	PunhPokhri	27	Samong	41	Haripur		
12	Bijnu <sup>1</sup>	28	Jogiyo	42	ByasNahri		
13	SidiBarkoti	29	Thanta	43	ByasBhund		
14	Rangau	30	Mendal <sup>1</sup>	44	Bansar		

15	Birpa			45	Chutaya		
16	KuradKhanadSichad						
<b>DISTRICT : TEHRI</b>							
<b>ASSEMBLY CONSTITUENCY- DHANAULTI</b>							
<b>DEVELOPMENT BLOCK- JAUNPUR</b>							
	<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>		<b>GP Name</b>
1	Muglodi	21	Khyarsi	41	Pali <sup>1</sup>	61	Bandasari
2	Digaun	22	Bichhu	42	Timyal Gaon <sup>1</sup>	62	Mair <sup>1</sup>
3	Tewa	23	Takarna	43	Sartali	63	Pantwari
4	Bangsil <sup>1</sup>	24	Chamasari	44	Ghaniyala	64	Ghora Khuri <sup>1</sup>
5	Budkot	25	Gaid	45	Bel <sup>1</sup>	65	Masras
6	Moldhar	26	Agariyana	46	Bodari	66	Mogi
7	Auntar	27	Lagrasu	47	Khaskudau	67	Masaun <sup>1</sup>
8	Tik <sup>1</sup>	28	Mawana	48	Dwargarh	68	Khairad+ <sup>1</sup>
9	Khera <sup>1</sup>	29	Kanda Jakh	49	Sadav	69	Tator
10	Bhunyasari <sup>1</sup>	30	Kimoi	50	Rampur Nigyana	70	Thakraul
11	Shirsh	31	Jinsi <sup>1</sup>	51	Binau	71	Tikri <sup>1</sup>
12	Mundani <sup>1</sup>	32	Tunetha	52	Gharad <sup>1</sup>	72	Birod
13	Thatyud	33	SiyaKempti	53	Srikot	73	Nakot
14	Papra <sup>1</sup>	34	Nawadidhar <sup>1</sup>	54	Bhatwari	74	Matli
15	Aglad Sera	35	LagwalGaon	55	Basangaon	75	Devban
16	Parori	36	Rayatgaon	56	Bistonsi	76	Ghansi
17	Kyari	37	Bhediyana	57	Khasonsi	77	Kadaksari <sup>1</sup>
18	Lalotna	38	Bhatoli <sup>1</sup>	58	Bamangaon	78	Myani
19	Bangar	39	BanglowkiKandi	59	Khaskoti		
20	ChhananGaon	40	Sainji	60	Sendul		
<b>DISTRICT : DEHRADUN, MODEL MICRO WATERSHED - BIDHALNA</b>							
<b>ASSEMBLY CONSTITUENCY- DOIWALA M DEVELOPMENT BLOCK- RAIPUR</b>							
	GP Name		GP Name		GP Name		GP Name
<b>1</b>	<b>Thano</b>	<b>5</b>	<b>Sangoan</b>				
<b>2</b>	Dharkot	6	Sindwalgaon				
<b>3</b>	<b>Talai</b>	<b>7</b>	<b>Haldwadi</b>				
<b>4</b>	Nahikhurd						

<sup>1</sup>-Gram Panchayats selected under SCSP program, which includes such revenue villages.

<sup>2</sup>- Gram Panchayats selected under TSP program, which includes such revenue villages.