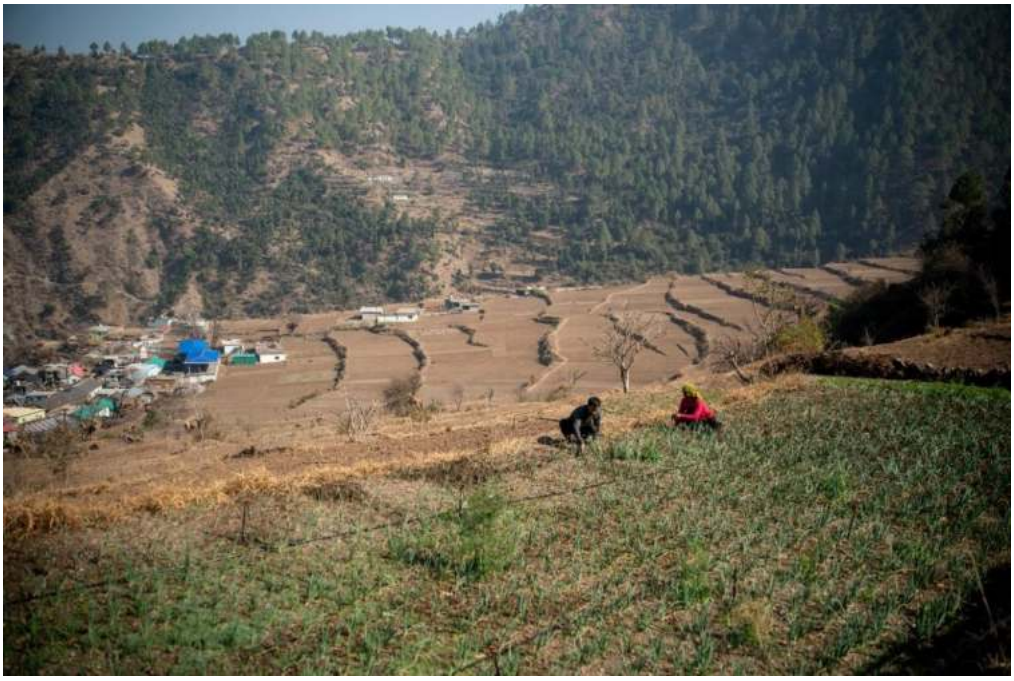
An Impact Assessment Report for CSR Initiatives of the Titan Integrated Village Development Program (IVDP)



Implemented by

Himmotthan Society, Dehradun, Uttarakhand

Study conducted by

Indian Institute of Forest Management, Bhopal

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Summary

Titan Company Ltd. has been advancing rural development through its Integrated Village Development Program/Projects (IVDP) as part of its corporate social responsibility initiatives. This program aims to holistically enhance village life by addressing various socio-economic needs including water scarcity, education, healthcare, and livelihood opportunities. Specifically, the program focuses on developing rural infrastructure, managing natural resources, and supporting local livelihoods through initiatives in healthcare, education, and community empowerment.

The IVDP, now in its second phase (IVDP-II), began in the fiscal year 2022-2023 and covers a three-year span. It is primarily being implemented in the Tehri Garhwal District of Uttarakhand across three clusters—Chamba (Jhadipani cluster), Thouldhar (Thouldhar cluster), and Jaunpur (Bhawan cluster)—impacting 60 villages and 5,033 households.

The project emphasizes two main thematic areas: the promotion of Water Smart Villages and the enhancement of village livelihoods, alongside education and sports. Initiatives under the Water Smart Villages theme include the augmentation of water supply schemes, water management systems, catchment area protection and recharge, precision irrigation systems, and individual schemes. Meanwhile, livelihood promotion spans several components such as support for livestock, agriculture, village institutions, groups, and cooperatives, as well as both on-farm and off-farm enterprise promotion.

The cluster-based approach of IVDP-II is proving sustainable, effectively addressing the needs of homogenous groups within the community, leveraging common property resources, and aligning with the local agro-climate and physiography. This strategy not only helps generate a marketable surplus but also facilitates a common marketplace, enhancing economic opportunities for residents.

However, the Water Smart component faces challenges including water source depletion, contamination, climate change impacts, and the rising costs of maintaining water quality and supply. It is recommended that the program increases community participation through a clustered micro watershed approach, extending efforts into forested areas to mitigate these challenges.

Overall, the livelihood and educational programs have been successful in enhancing income and improving living standards within the villages. The Self-help groups (SHGs) and Cooperative efforts have been instrumental in reducing risks associated with livelihood programs, while digital education and sports programs have shown effectiveness with potential for further expansion to support additional schools and colleges.

In summary, the IVDP-II is making significant strides in improving rural life in targeted areas, with the potential for greater success through continued and expanded implementation of its diverse components.

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Background

The Titan company Ltd. has been implementing the Integrated Village Development Program/ Projects (IVDP) under their CSR initiatives. These are an important initiative looking at the scope and impact of IVDP, which takes a comprehensive approach to rural development, is to improve villages by attending to a range of socioeconomic and water needs. Through the integration of natural resource development and management, rural infrastructure development, healthcare, education, spring shed management and livelihood opportunities, this programme aims to improve the general quality of life and natural resources conservation in rural areas. Hence the IVDP comprises of Infrastructure development, livelihood support, community empowerment, health care, education, watershed protection/ conservation etc. The sustainable infrastructure development is essential due to the ever depletion of natural resources such as water, natural vegetation and soil productivity. Because the rural community largely depends on these resources to sustain and to meet the livelihood needs. Hence the creation and improvement in rural infrastructures such as roads, water supply system, sanitation, electricity, health care, education etc. yield to better living conditions and fostering economic growth of the rural community. Through the encouragement of entrepreneurship, skill development training, and vocational education, livelihood programmes support the development of sustainable livelihood options. The IVDP seeks to lower poverty rates and improve the general economic well-being of rural areas by promoting economic empowerment. Further, The Integrated Village Development Programme encourages the creation of self-help organisations and includes local stakeholders in the decision-making process in order to empower and engage the community. Giving communities the authority to lead development projects promotes sustainability and guarantees that interventions are customised to the requirements of the local community. Thus the IVDP has the ability to enhance millions of people's lives worldwide by transforming rural landscapes and integrating infrastructure development, healthcare, education, and livelihood support.

Tata trust and Titan company Ltd. have been extending financial support to the Himmottan Society, Dehradun, Uttarakhand for carrying integrated village development work in the region since 2013-2014. The Integrated Village Development Project Phase-II is being implemented for three years starting from 2022-2023. The present impact assessment of Titan Ltd. CSR project will be related to the all the project works carried during the year 2022-2023. The IVDP-II has been implemented in Tehri Garhwal District, Uttarakhand. Tehri Garhwal district situated between longitude 77° 56' E and 79°02' E; latitude 30° 03' N and 30° 52' N, and makes the southern slopes of mid Himalayas, which is one of the sacred hilly districts of Uttarakhand State. Total geographic area of the district is 3642.00 sq.km and out of that the forest area is of 3215.64 sq. km (88.29 %). Normal rainfall of the district is 1258.1 mm and minimum and maximum temperate is -4° C and 27.8°C, respectively. As per the census, 2011, total population of the district was 618931 and male and female population was at 297986 and 320945, respectively with population density of 169 inhabitants/ sq.km. The district administrative divisions are, Tehsil 12, development blocks 9, Nyay panchayat 75 and village Panchayat 1034. Deforestation and forest degradation, impact of climate change and various development projects such as hydel projects and road constructions, such as Char Dham highway construction project, urbanization, migration and poor population density on the other hand,

etc. have significant risks to the ecologically fragile region. Water management in these is crucial for sustainable development and the well-being of communities. Due to the depletion of water resources, natural vegetation and soil moisture, water for irrigation, drinking water, there have been out migration in the district. Villages' ability to survive is continuously in jeopardy in these circumstances. Villages in remote areas with difficult geography, dispersed populations, and low population density (which results in less political participation) call for a whole different strategy. Addressing these challenges requires a multi-faceted approach, including improved governance, sustainable management of water resources, investment in infrastructure, access to financial services, skill development, better supply chain to the produces, community participation and empowerment and internalize the traditional practices in protecting and augmenting natural resources become important for the region. The Integrated Village Development Model makes an attempt to approximate this need. IVDP is a procedure that frequently calls for project activities to be executed with flexibility, midterm course corrections, and area-specific approaches.

The project work is being implemented in three clusters extended in three development blocks, namely Chamba (Jhadipani cluster), Thouldhar (Thouldhar cluster) and Jaunpur (Bhawan cluster) and 60 villages, i.e. 20 villages in each cluster and 5033 households (table 1: project villages). Out of the 60 villages 29 villages are newly included, whereas the in remaining villages of the project activities have continued from the previous project (IVDP-Phase I). From the data available with the project implementation agency that the project development blocks are pertaining to rural areas of the district with total geographic area of 610.25 sq.km (Thauldhar-145.21 sq.km; Jaunpur – 302.48 sq.km; Chamba – 162.56 sq.km) with total population of 166572 number (Thauldhar – 43403; Jaunpur – 72219; Chamba – 50950) and family size of 5 and population density of 273 habitants/ sq.km, which is more than the district average of 169 inhabitants/ sq.km.

The Himotthan Society, in collaboration with Titan Company Ltd. and Tata Trust, has been promoting a number of activities, such as skill development and capacity building, to help people become self-sufficient and enter the self-employment market. Women's empowerment, agriculture enrichment, animal husbandry, fodder development, rural small business promotion, drinking water supply, spring shed management and watershed management, sanitation, digital education and sports, etc. are the main activities of the Livestock Initiative Programme and the Education and Sports Memorial, etc. The encouragement of women's participation in rural businesses and the self-sufficiency of community-based organisations in livelihood promotion are priorities that are being emphasised through self-help groups. Titan Integrated Rural Development through women self-help groups in 20 villages selected in each clusters, development blocks namely Chamba, Tauldhar and Jounpur of Tehri Garhwal district. For the purpose of impact assessment Jadipani cluster, Chamba block and Jamati cluster, Jaunpur have been visited and interacted with the beneficiaries.

To understand the implementation of the livelihood component of IVDP, Jamati and Himvikas cooperatives, Jadipani have been visited and outcome of the interaction with the cluster officials and cooperatives members is presented below. Without understanding the

functioning and initiatives under these cooperatives the impact of various components may not be possible. Because, these cooperatives have been working in the area since 2023-14 to till date and have been guiding and providing firm basis for the implementation of different project components of IVDP in the development blocks of the project.

Study approach

The methodology employed in this study was participatory, focusing on the identification of impact indicators derived from secondary data provided by the project implementation agency and through interactions with beneficiaries. These indicators were organized into three main categories: socio-economic, economic, and environmental/ecological, each with its specific impact parameters measured in various units.

To assess these impacts, a questionnaire was developed, which was then reviewed by the project implementation agency to incorporate their insights and additional secondary data. Based on this refined information, the selection of sample villages and beneficiaries was finalized in collaboration with the project implementation agency (PIA). The villages selected for the study were those where numerous sub-components of the project were implemented, allowing for a comparative analysis of the levels of impact.

Although the sample size remained within the target range of 5-10% of the total project scope, considerations were also made regarding the unique characteristics of the beneficiaries and the extent of impact, to gain a deeper understanding of the nuances associated with project implementation and its effects.

Ultimately, from the three clusters originally considered, two were selected for visits. In total, 15 villages were included in the study for detailed beneficiary-level data collection, ensuring a comprehensive evaluation of the project's impacts.

Functioning and initiatives under Jamati Autonomous Cooperative

Jamti Autonomous Cooperative was formed on May 18, 2016 and registered under 'Uttarakhand Autonomous Cooperative Act-2003'with the cooperation of 'Himotthan Society'. As on March 2023, there are 682 share holder members from 75 self-help groups with 778 members have joined the cooperative. Till now, a total of 07 village organizations have been formed for the leadership of self-help groups in each village. With the aim of connecting the members of self-help groups with self-employment, various business activities are being implemented by the cooperative. The profits received from the business activities are distributed among the shareholding members of the cooperative. Along with this, local business activities are also proving helpful in stopping the migration of youth from the area.

Executive committee meetings of Self-Help Groups and Cooperative Board of Directors are organized once every month (on different dates). In the meetings of self-help groups, regular micro savings are deposited by all the members, internal loan facility is availed, proposals are prepared for new business programs, and the loan and interest taken by the members are returned. After this, the money collected in the group is deposited in the bank, for which different members are responsible every month, so that the rural women can get information

about depositing and withdrawing money in the bank and loan facilities for various business activities. The cooperative has provided employment to 7 local women under the microfinance program and business management program. Through institutions and cooperatives, rural women and farmers are being given information about possible agriculture and non-agriculture based small enterprises at the rural level. The organization is also providing desired support to the groups in making cash branch limit available to the groups, so that the group or group members can easily get investment capital in income generating activities as per requirement. The organization is also providing support in preparing the microcredit plan (Microcredit Plan) of each group.

Village organization has been formed by selecting eligible members from each self-help group. Meetings of village organizations are organized every month. In each meeting, training based on maintenance of account books, knowledge of general accounting, leadership development, etc. are organized for capacity development of rural women. Thus, every village organization acts as a micro form of an autonomous cooperative (federation) at its village level.

Dairy development:

Since April 2017, the rural milk production and marketing endeavors have been undertaken by the Jamti Autonomous Cooperative in partnership with the Himotthan Society. The Jamti Milk Dairy is duly registered under FSSAI, with annual renewals in place. This collaboration has not only enabled local milk producers to fetch competitive prices for their milk but also ensures top-notch quality for consumers. Presently, approximately 50 milk producers are affiliated with the cooperative. To facilitate milk trade, collection centers have been established at the village level, each with a designated collector. These centers are equipped with milk measuring and quality checking instruments, as well as utensils. Currently, four collection centers operate within the project area. Collectors receive a commission-based honorarium of Rs 1.5 per liter based on the total quantity collected. Rental vehicles are arranged daily to transport the milk from producers to marketing centers in the market. Additionally, milk product manufacturing is conducted within the dairy, focusing on items such as curd, butter, cheese, and whey, based on market demands. The Himotthan Society provides invaluable support in market arrangements, quality control, product manufacturing, and business management. Notably, three local youths, including two collectors and one dairy facilitator, have secured employment through the cooperative's dairy business. This business has few threats like limited customer and inconsistent supply of milk especially during the high demand for milk and milk products.

Animal feed facility

In April 2017, the cooperative initiated the production of high-quality animal feed, backed by financial support from 'Tata Trusts' and 'Titan'. This feed is crafted from local grains, with technical guidance provided by the Himotthan Society. To operationalize this endeavor, the cooperative markets the industry through Trishuli Producer Company Limited. Currently, besides producing feed for dairy animals, the cooperative has expanded into goat and chicken feed production. A local service provider from the project area manages this business, receiving a monthly honorarium from the cooperative. However, challenges arise from inadequate grain supply from local farmers, necessitating expensive external purchases, which

escalate production costs. Consequently, the increased prices have dampened the sales of animal feed, diminishing profitability.

Community Facility and Farmers Information Center

In February 2017, the Jamti Autonomous Cooperative, in partnership with the Himotthan Project, established the 'Community Facility and Farmers Information Centre' in the local market Almas. This center operates commercially under the cooperative's auspices, managed by a designated service provider. It serves as a hub for offering high-quality seeds of various vegetable varieties, agricultural chemicals, fertilizers, advanced farming equipment, irrigation materials, and essential supplies related to animal husbandry, all available to farmers at competitive prices.

Hatchery unit establishment

In May 2016, as part of the Himotthan project, the cooperative embarked on hill poultry farming with financial backing from 'Tata Trusts' and 'Titan'. Guided by the Himotthan Society, backyard units or mother units were established across various villages. Initially, each mother unit received 10 Pahari chickens at no cost through the project. Eggs are incubated daily for 21 days in hatchery units set up by the cooperative. Subsequently, one-day-old chicks are sold at the brooder unit for Rs. 35 each. After 21 days of rearing in the brooder unit, the chicks are ready for sale and can get Rs. 120 in the local market.

Micro loan facility for animal husbandry

The 'Titan Integrated Village Development Project', overseen by the Himotthan Society, offers a micro-loan facility for villagers engaged in animal husbandry businesses. Through the cooperative, members have access to a fixed fund provided in the form of micro-loans with minimal interest rates. This facility enables interested animal farmers to acquire high-yielding animals, with the option to repay the principal amount and interest through monthly or quarterly installments. Additionally, cattle farmers can liquidate their loans by selling the milk from their animals to the cooperative's dairy.

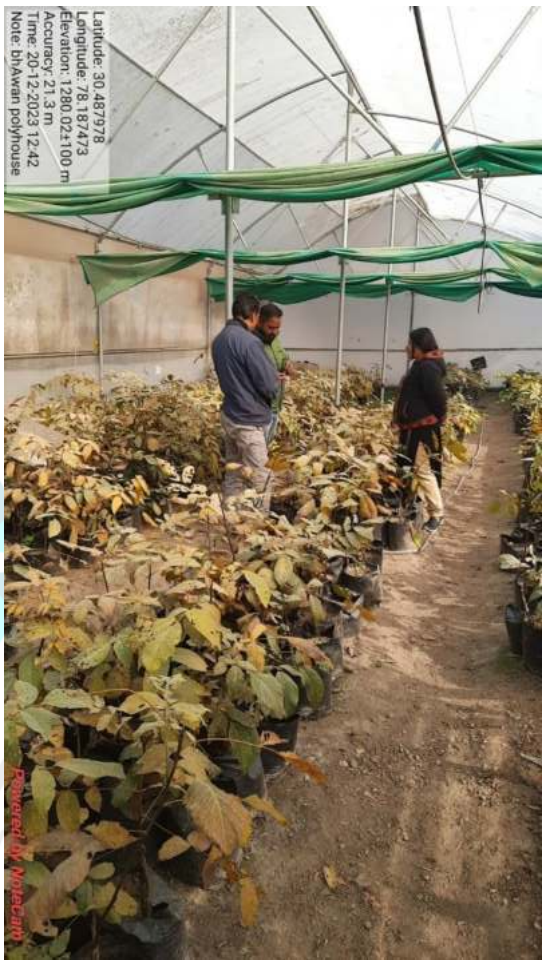
Likewise, farmers keen on goat rearing can also obtain micro-loans from the cooperative to procure improved breeds of goats. To streamline the goat rearing business, the encouragement of advanced breed goat rearing receives financial support from the Himotthan Society, 'Tata Trusts', and the 'Titan Company'. Technical assistance in animal husbandry and goat rearing is furnished by the Himotthan Society and the Animal Husbandry Department of the Jaunpur development block. The Animal Husbandary department also provided information on the schemes of improved fodder production for animals.

Horticulture initiative

Within the 'Titan Integrated Village Development Project' administered by the Himotthan Society, a demonstration activity focused on planting fruit saplings was conducted for selected farmers across several villages. This initiative included exposure visits, field-level workshops, and meetings to enhance agricultural practices. As part of the program, every farmer received peach and apple saplings along with training from the horticulture department on pruning techniques and pot making. During the 2022-2023 fiscal year, horticultural endeavors involving peach, plum, apricot, and walnut were undertaken with 25 farmers. Each farmer

received free fruit saplings and assistance in pit digging through the project. To expand these efforts, the Jaunpur Horticulture Department of the Government of Uttarakhand actively encourages gardening among farmers and ensures they avail full benefits from government schemes.

Fruit bearing tree nursery initiative



Under the project Titan IVDP and Upliftment Project run by Himotthan Society, in view of increasing the business of the cooperative and expansion of horticulture in Bhawan cluster, Jamti nursery was established by the cooperative in which various types of fruit plants are prepared and sold, including apricot. Mainly walnut, about 88 lakh fruit saplings were prepared and sold by the cooperative in the year 2022-23. In the future, there is a plan to prepare all types of fruit saplings in the nursery. The Horticulture Department also cooperates in this cooperative fruit nursery, which mainly involves grafting.

Farm Machinery Promotion

Under the Farm Machinery Bank Scheme facilitated by the Agriculture Department of the Uttarakhand Government, in collaboration with the Jamti Autonomous Cooperative established by the Himotthan Society, a Farm Machinery Bank has been instituted. This bank features 10 power seeders and one oil crushing machine, aiding farmers in field plowing and wheat and manduwa extraction. The cooperative generates income through these services. The Uttarakhand government actively promotes the Farm Machinery Bank, ensuring farmers receive full benefits from government schemes. In this initiative, the cooperative contributes 20 percent of the funding, while the remaining 80 percent is covered by the Agriculture Department of the Uttarakhand Government. Cooperative members and farmers beyond the project area benefit from the Farm Machinery Bank. The Agriculture Department collaborates with the Jamti Autonomous Cooperative on various activities, including the construction of irrigation tanks, the demonstration of hybrid seeds, and the provision of crop insurance to cooperative members (farmers) to mitigate potential crop damage.

Trishuli Producer Company Limited: 'Trishuli Producer Company Limited' is officially registered in Dehradun, with cooperative members engaging in share investment discussions. The Jamti Autonomous Cooperative has notified its shareholders of the opportunity to invest in shares at a rate of Rs 200 per member, entitling them to dividends from the company. A majority of members have agreed to subscribe to shares, resulting in a total collection of Rs 48,000 from

240 members of self-help groups formed across various villages, at a rate of Rs 200 per member. A total of 200 members have invested shares worth Rs 40,000 in the company. Going forward, each cooperative will receive dividends based on their respective share investments in 'Trishuli Producer Company Limited'. Any dividends received by the Jamti Autonomous Cooperative from the company's business operations will be distributed among all shareholder members. Progress is swiftly underway to formulate future strategies and business plans at the company level

Operation of Jan Suvidha Kendra (JSC): The Jan Suvidha Kendra (JSC), operated by the Jamti Autonomous Cooperative, established through the Village Development Project and Central Himalaya Livestock Initiative Project, commenced operations in April 2021. This initiative has provided employment to two local youths, offering a wide array of online services. The Kendra also conducts camps during group meetings at the village level, facilitating various amenities for associated families. These services include payment of electricity bills, vehicle taxes, mobile recharges, and more. Moreover, the Jan Suvidha Kendra facilitates the online processing of individual documents such as permanent residence, caste certificates, mountain permits, and birth-death certificates, streamlining administrative processes for the community.

Jamti Pollution Testing Center (PVC): The Jamti Pollution Testing Center (PVC) is located on Bhawan Nagun Motor Marg, Alamas, and is operated by the Jamti Autonomous Cooperative established through the Titan Integrated Village Development Project under the auspices of the Himotthan Society. Commencing operations in February 2023, the center has provided employment to one local youth. It conducts pollution testing for all types of vehicles and issues certificates to vehicle owners. The testing center holds a license issued by the Uttarakhand Transport Department and operates under their supervision. Currently, the cooperative charges a rate of Rs 110 per vehicle, with Rs 30 per vehicle remitted to the Uttarakhand Transport Department.

Functioning and initiatives under Him Vikas Autonomous Cooperative

The operational model of the Him Vikas Autonomous Cooperative bears a resemblance to that of the Jamati Cooperative, albeit with an expanded outreach that surpasses that of the Jamati Cooperative.

On April 24, 2013, the autonomous cooperative was established through collaboration with the Himmotthan Society. Subsequently, on May 31, 2014, the Him Vikas Autonomous Cooperative was officially registered under the Uttarakhand Autonomous Cooperative Department Act-2003, bearing registration number 103. Located in Saud (Jadipani), within the Chamba development block of Tehri Garhwal, the cooperative serves a network of 20 villages, encompassing a total of 10 village-level organizations.

Following activities have undertaken/ implemented by the cooperative during 2022-23 and they are as follows:

- Regular functioning of self-help groups, leadership and operations, which includes regular meetings, micro savings, internal loans, etc.,
- Dairy Business, Him Vikas Dairy.
- Marketing of nutritious 'animal feed' based on local grains.
- Operation of community facility and farmer information centre.
- Market linkage for marketing of agricultural products.
- 'Tata Tea' (tea leaf) marketing.
- Rural tourism.
- Public Service Centre (Jan Seva Kendra)
- Artificial insemination for breed improvement in 'Cow' and 'Mahish' animals.
- Micro-loan facility for villagers for animal husbandry business.
- Horticulture extension- Planting of fruit trees.
- Business with State Level Trishuli Manufacturing Company Limited.
- Organization of annual general meetings

SHGs: According to cooperative records, there are 105 Self-Help Groups (SHGs) comprising 998 members who hold shares in the cooperative. To date, 10 village organizations have been established to oversee the leadership of SHGs within each village. Monthly meetings involve routine activities such as collective micro-savings deposits, utilization of internal loan facilities, drafting proposals for new business ventures, and ensuring the repayment of loans and interest by members.

The Himotthan Society extends continuous support to all SHGs by formulating micro-credit plans, facilitating bank connections, and strategizing future endeavors aimed at enhancing income. This includes providing information on potential agriculture and non-agriculture-based small enterprises at the village level. The organization also assists groups in securing cash branch limits, enabling easy access to investment capital for income-generating activities as needed.

Furthermore, the cooperative has created employment opportunities for five local women through its microfinance program.

Him Vikas Dairy: Since July 2013, the Him Vikas Autonomous Cooperative has been actively engaged in rural-level milk production and marketing in collaboration with the Himotthan Society. Currently, the cooperative collects and sells an average of 300 liters of milk daily, sourced from over 250 milk producers.

Market animal feed: In January 2014, the cooperative commenced the production of high-quality animal feed with financial backing from 'Tata Trusts' and 'Titan'. However, due to the timely unavailability of local grains during the year, the cooperative opted not to produce the feed itself. Instead, it engaged in marketing activities by procuring animal feed from the Jamti Autonomous Cooperative. This process is facilitated through Self-Help Groups (SHGs), offering a financial incentive of Rs. 50.00 per quintal for sales.

Artificial insemination for breed improvement in cattle and buffalo animals: To offer artificial insemination services within the region, the project has enlisted a Paravet (Uttarakhand Pashudhan Sathi (UPSA)) via the cooperative. Technical training for the Paravet has been

conducted by the Uttarakhand Livestock Development Council (Uttarakhand Livestock Development Board). The progeny (calf/female) resulting from artificial insemination in animals exhibit improved traits.

Under the 'Madhya Himalay Pashudhan Karyakram' (Central Himalayan Livestock Initiative), the Himotthan Society consistently conducts awareness programs for cattle rearers in the area. These programs enlighten them about the breeds of offspring produced through artificial insemination and emphasize their significance for the future.

Community Facility and Farmers Information Center: In September 2014, the Him Vikas Autonomous Cooperative launched the Community Facility and Farmers Information Centre at the regional market in Chamba. This center operates commercially and is managed by a designated service provider. It offers a range of services and facilities to farmers, including information on farming practices, household items, agricultural goods, improved seeds, fertilizers, pesticides, agricultural equipment, irrigation tools, and farm machinery.

Public welfare center (Jan Suvidha Kendra): In January 2021, the Himotthan Society, in partnership with Titan Company Ltd., inaugurated the Center. The Jan Suvidha Kendra offers various services including online employment applications, recharge facilities, tax assistance, and telemedicine to every village. Additionally, it operates as a cooperative enterprise, charging government-fixed fees from beneficiaries. The center provides a wide array of services such as birth certificates, original residence certificates, permanent domicile certificates, caste certificates, death certificates, PAN card and Aadhar card printing, health cards, Shramik cards, Pensioners KYC, life certificates, employment registrations, job placements, mobile recharges, electricity bill payments, telemedicine consultations, insurance premium payments, and government tax deposits. Furthermore, the Jan Suvidha Kendra offers employment opportunities to two youths.

Small loan facility for villagers for animal husbandry business: Within the 'Mid Himalayan Livestock Program' administered by the Himotthan Society, a provision was established to procure animals of superior breeds for selected cattle herders for demonstration purposes. The cooperative has designated a fixed fund for this initiative, which will be accessible to its members in the form of micro-loans at minimal interest rates. Individuals lacking sufficient funds to purchase animals can avail themselves of loans from the cooperative. These loans can be repaid in monthly or quarterly installments, along with the principal and interest, or through the sale of milk to the cooperative. Likewise, farmers interested in goat rearing can obtain micro-loans from the cooperative to acquire improved breeds of goats.

Market linkage for marketing of agricultural products: Farmers in the project area engage in commercial production of both cash crops and vegetables; however, despite their diligent efforts, production levels remain unsatisfactory in the hilly terrain. To address these challenges, the cooperative has been actively involved in vegetable marketing since 2017. Produce is supplied to high-demand markets such as Rishikesh, Dehradun, Jwalapur, Dehradun Mandi, and other market places.

Rural tourism: With the potential for tourism in the region in mind, the Him Vikas Autonomous Cooperative Jadipani, in partnership with the Himotthan Society, has ventured into the tourism

industry. This initiative involves operating homestays at the cooperative village level with assistance from the Himotthan Society. Tourists are provided guided tours of villages and forests, and local employment opportunities are created through collaboration with the media team.

Business with state level Trishlu Producer Company Limited: Similar to the Jamati cooperative, this cooperative has adopted a comparable mechanism. Throughout the year, it collaborates with Trishuli Company to oversee the marketing of local grains, animal feed, and agricultural products.

Besides above, the cluster office also coordinated in the implementation of IVDP-II, Education and Sports Program, Community based Rural tourism.

Table 1 Project villages, Tehri Garhwal district, Uttarakhand (Source: Himmotthan society, 2022-23)

Name of the village	Name of the GP	Project, New/ Existing	Total households (No.)
Jhadipani Cluster, Chamba Development Block			
Khuret	Khuret	Existing	60
Pujaldi	Pujaldi	Existing	80
Nager	Nager	Existing	150
Kanatal	Sour	Existing	208
Jaripani	Sour	Existing	200
Dungli	Dungli	Existing	45
Sunar Gaon	Sunar Gaon	Existing	80
Chourani Kund	Sunargoun	Existing	30
Kakhwadi	Kakhwadi	Existing	52
Silogi	Silogi	Existing	110
Chopriyal Gaon	Chopriyal Gaon	Existing	110
Churedhar	Chopriyal Gaon	Existing	80
Gunogi Bamund	Gunogi Bamund	Existing	75
Aarakot	Aarakot	Existing	108
Silkoti	Silkoti	Existing	80
Kanthar Gaon	Kanthar Gaon	Existing	40
Kemar Gaon	Khadikhal	Existing	30
Manjyadgaun	Silkoti	Existing	40
Khadikhal	Khadikhal	Existing	80
Gunogi Udaykot	Gunogi Udaykot	Existing	95
20 villages			1753 households
Thouldhar Cluster, Thauldhar Development Block			
Bhamorikhal (Sour block)	Bhamorikhal	New	50
Sinwalipatal	Sinwalipatal	New	80
Jhakogi Bharamano ki	Jhakogi I	New	50
Jhakogi Kilwano ki	Jhakogi II	New	73
Dang	Dang	New	128
Kansud	Kansud	New	200

Bangiyal	Bangiyal	New	50
Kyari	Kyari	New	59
Gair Gunsai	Gair Gunsai	New	180
Rendoni	Rendoni	New	84
Banda	Banda	New	130
Dandi	Dandi	New	32
Sendna	Sendna	New	30
Manjarwal Gaun	Manjarwal Gaun	New	86
Idiyana	Idiyana	New	131
Pandogi	Pandogi	New	52
Pagari	Pagari	New	85
Dhamadi	Dhamadi	New	30
Khamoli	Khamoli	New	34
Nakot	Nakot	New	52
20 villages			1616 households
Bhawan Cluster, Jounapur Development Block			
Routo Ki Beli	Routo Ki Beli	Existing	142
Chali Ka Danda	Routo Ki Beli	New	68
Almas	Almas	Existing	208
Banshi	Banshi	Existing	42
Satagad	Banshi	Existing	28
Syalsi	Syalsi	Existing	210
Bhenswadsari	Gauran	New	22
Bhaim	Bhaim	Existing	69
Dangla	Gawana	Existing	39
Gawana	Gawana	Existing	45
Naughar	Naughar	New	91
Kith	Kith	New	38
Than	Than	Existing	213
Domasi	Domasi	New	33
Sabli	Sabli	New	52
Gadeth	Gadeth	New	43
Mathlaun Talla	Mathlaun	Existing	104
Mathlaun Malla	Mathlaun	Existing	92
Dangu	Dangu	New	64
Bait	Bait	New	61
20 Villages			1664 Households
Total 60 villages			Total 5033 villages

Project Components

The project IVDP-Phase II aims to cover all the age group of the project villages/ households. There are two thematic groups, namely promotion of Water Smart Villages and promotion/ protection of village Livelihoods and education and sports. Under the Promotion of Water

Smart Villages, thematic activities like Augmentation of water supply scheme, Water Management systems, Catchment Area Protection - Recharge, Precession irrigation systems and Individual Scheme. Whereas, under livelihood promotion/ protection six components, namely livestock, agriculture, village institutions, groups, & cooperatives, on-farm and off-farm enterprise promotion, education & sports. Following table 2 & 3, provides activity wise, villages covered and number of beneficiaries and cost to the project per village under the project, IVDP-II.

The approach of cluster approach seems to be sustainable, as it is addressing the homogenous groups (socio-cultural), having adequate common property resources, agro-climate and physiography. Justification given for clusters approach that helps in generating sufficient marketable surplus and also common market place. The justification given is valid as the overall objective is to create a sustainable livelihood system and spring shed management in the project clusters.

Table 2 Promotion of Water Smart Villages, block/ village wise (Source: Himmotthan society)

Thematic activities	**Activity Name**	**Village name**	**Number of beneficiaries**	**Village-wise, activity-wise Cost (Rs.)**
Jhonpur Block				
Augmentation of water supply scheme	Water Supply in Village	Syalsi	43	405881
		Sattagaad	26	350722
Water Management systems	Water Management System	Saabli	35	275304
		Baith	11	215630
		Mathlaun Talla	58	570694
Catchment Area Protection - Recharge	Catchment Area Protection - Recharge	Kith	36	65107
		Saabli	37	98948
		Bhaim	46	75268
		Naughar	52	81338
		Dangala	39	44648
Precession irrigation systems	Individual Scheme	Bhainswad Sari	Upendra Singh	76045
Thouldhar Block				
Augmentation of water supply scheme	Water Supply in Village	Tok Ukali Jakogi-I	21	809803
Water Management systems	Water Management System	Dang	31	529352
Catchment Area Protection - Recharge	Catchment Area Protection - Recharge	Sinwali Patal	50	81198
		Jakogi-I	23	183931
		Gair Gusain	21	48717
		Naulli	14	51689

		Kansur	95	211821
		Banda	55	227568
Precession irrigation systems	Individual Scheme	Kansur	Nain Sing Gusain	83835
Chamba block				
Catchment Area Protection - Recharge		Chopriyal Gaon	45	178250
		Manjyar Gaon	35	112652
		Silkoti	24	136552
		Sun Gaon Kanatal	38	132393
Precession irrigation systems	Individual Scheme	Chopriyal Gaon	Parvesh Dabral	38356
		Naged	Jamila	40658

Table 3 Livelihood promotion activities undertaken in the project villages in the project villages and

	Jhadipani			**Thauldhar**			**Bhawan**		
Thematic area: Livestock development									
Activity: Large ruminants-based Interventions and enterprises									
Name of the activity	Village name	No. of beneficiaries	Cost (Rs)	Villages	No. of beneficiaries	Cost (Rs)	Villages	No. of beneficiaries	Cost (Rs)
Animal purchase	Aarakot	1	25000				Dangu	2	50000
	Chopriyalgoun	2	50000				Sabli	2	50000
	Choukhal	1	25000				Kith	3	75000
	Dhungli	5	125000				Bhenswadsari	2	50000
	Gunogi Udaykot	2	50000				Almas	1	25000
	Jaripani	3	75000				Gadet	3	75000
	Kanthargoun	1	25000				Mathlaun Talla	1	25000
	Khadikhal	1	25000						
	Manjargoun	1	25000						
	Silkoti	2	50000						
	Thangdhar	2	50000						
Cattle shed	Arakot	1	19950	Bhamorikhal	1	19950	Mathlaun	4	79800
	Chopriyal Gaun	1	19950	Jhakogi (Chalinj)	1	19950	Syalsi	3	59850
	Dhungli	1	19950	Kansyud	2	39900			
	Jadipani	2	39900	Pagari	1	19950			
	Kakhwari	1	19950	Idiyan	1	19950			
	Thangdhar	2	39900	Jhakogi (Devidhar)	1	19950			
Activity: Small ruminants-based Interventions and enterprises									

Goat shed	Arakot	1	19950	Bhamorikhal	3	59850	Almas	1	19950
	Gunogi Bamund	1	19950	Jhakogi(Devidhar)	1	19950	MATHLAUN	2	39900
	Kahwari	1	19950	Jhakogi (Langu)	2	39900	DANGALA	1	19950
	Kanthar Gaun	1	19950	Dang	1	19950	DANGU	1	19950
	Manjyadgaun	1	19950	Gair	2	39900	KITTH	1	19950
	Naged	3	59850	Idiyan	1	19950	SYALASI	1	19950
	Saur	1	19950				THAN	1	19950
	Saur Jadipani	1	19950				NAUGHAR	1	19950
							BHANSWADI	1	19950
							Dangu	1	15000
							Dandgla	1	20000
							Dangla	1	15000
Purchase goat for breed improvement	Silogi	2	48000	Bhamorikhal	2	60000	Than	1	30000
	Gunogi Bamund	1	24000	Jhakogi (Devidhar)	1	30000	Mathlaun Malla	1	30000
	Sunargaun	1	24000						
Fodder management measures									
Fodder work	Silkoti	27	40000				Bhenswadsari	19	33212
Thematic area: Agriculture development									
Activity: Production enhancement-based interventions									
Orchard	Aarakot	1	4125	Dang	2	24750	Sabli	5	18480

	Jaripani	4	30855	Jhakogi (Langu)	3	28875	Naughar	4	21450
	Naged	1	4950	Kansyud	2	12375	Bhainswarsari	1	3300
	Thangdhar	1	32750	Bhamorikhal	1	65500	Rawtuki Beli	5	393000
				Kansyud	1	163750			
Activity: Input supply-based interventions									
Farm Machinery (Power weeder)				Kansyud	2	24390			
				Bhamorikhal	6	73170			
				Jhakogi (Langu)	1	12195			
				Siwanli Patal	3	36585			
				Jhakogi (Chalinj)	2	24390			
Thematic area: Village Institutions Groups and Cooperatives									
Activity: SHGs savings and individual level enterprises									
SHGs in 20 villages	106SHG	1011	Saving-1457730	36SHGs	306	Saving Rs-250600	75SHG	762	Saving Rs-5438740
			Loaning-5248300			Internal loaning Rs-41000			Internal loaning Rs-4240400
Young Girls Group (saving/credits/educational....									
Young girl groups	Jaripani	2		Manjuruwal	1		Mathlaun	2	
	silkoti	1					Routo Ki Beli	2	

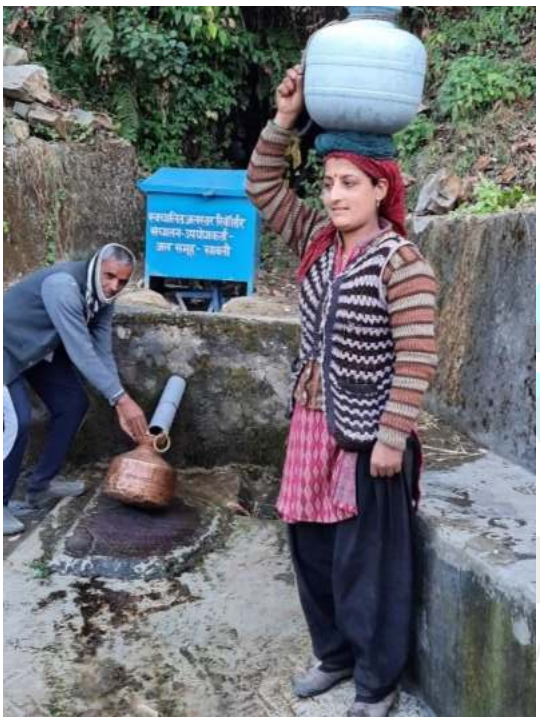
	Naged	1							
Institutional Level Savings/Enterprises/credits									
CSC,CFC,Dairy, Tourism, Vegetable Marketing	Jaripani						Bhawan		
Thematic area: Enterprise Promotion									
Farm based									
Poly-house	Thangdhar	1	12195	Bhamorikhal	1	12195			
	Jaripani	1	12195	Kansyud	1	12195			
	Dhungli	3	36585	Gair	1	12195			
				Dang	1	12195			
				Pandogi	1	12195			
				Jhakogi	1	12195			
Non-farm based									
Support to homestay	Jaripani	3	240000						
	Kakhwari	1	80000						
	Chopriyal Gaun	1	80000						
	Choukhal	1	80000						
	Manjargoun	1	80000						
	Silkoti	3	160000						
Service Sector based enterprise promotion									
Vehicle for Veg Marketing	Jaripani	Him Vikas Swayat Sahkarita	1100000						
Thematic area Education and sports									
Activity: Village Level Edu-Sports-Lib-Carrier-Learning									
Education & sports Activity	Digital Learning Center & library	Him vikas Swayat Sahkarita	700000						

Education & sports Activity	-	-	-				Routo Ki Beli	GIC Routo Ki Beli	
							Routo Ki Beli	JHS Routo Ki Beli	
							Bhawan	GIC Bhawan	
							Bhawan	SVM Bhawan	
							Nakurchi	GIC Nakurchi	
							Naughar	GHS Naughar	
							Than	GGIC Than	
							Mathlaun	GIC Mathlaun	
							Bait	JHS Bait	
							Than	JHS Than	
							Routo Ki Beli	GIC Routo Ki Beli	
							Routo Ki Beli	JHS Routo Ki Beli	
							Bhawan	GIC Bhawan	
							Bhawan	SVM Bhawan	
							Nakurchi	GIC Nakurchi	
							Naughar	GHS Naughar	

							Than	GGIC Than	
							Mathlaun	GIC Mathlaun	
							Bait	JHS Bait	
							Than	JHS Than	

Promotion of Water Smart Villages (WSVs)

Promotion of water smart villages (WSV) is being the aim of many river catchment area development programs in India. Because, WSV are a proactive approach to sustainable water management in rural regions with the goals of boosting livelihoods, increasing agricultural output, and ensuring water security. WSVs combine cutting-edge technologies, community involvement, and best practices to maximize water consumption efficiency and lessen the difficulties rural communities confront when it comes to water. Looking to the project area, in which most of the catchments of source water has been degraded due to deforestation and forest degradation. Due to that the villagers were finding difficulty in meeting drinking water, maintenance of health & hygiene, livestock promotion and irrigation. Springs and tributaries are the main source of water to the hilly population. In this regard the key activities identified by the Himmotthan is very much suits to the project area. Activities, Water Supply in Village, Water Management System, Catchment Area Protection & Recharge, Precession Irrigation Systems, are expected to benefit the villagers even after the project period also.



i. Augmentation of water supply in the villages: Three villages namely Syalsi, Sattagaad, Ukali have been addressed under this category of activity. For the impact assessment Satagaad, Panchayat Baansi, Chamba block and Ukali, Jhakogi Panchayat of Thouldhar block have documented and presented below:

The project village were facing drinking water shortage during most part of the year. Because the water supplied under Panchayat scheme was not providing adequate water, sometime even supply was once in 5 days or so, which made them to travel long distance to collect drinking water. Besides that, the water quality was an issue and villagers were facing health related problems due contaminated water. In the project villages surface water and groundwater are both important sources for community water supply needs.

As per the project record, 15 Himmotthan employees and sum of Rs. 350722 in Satagaad village and Rs. 809803 in Ukai was spent in completing the project work. Source catchment of springs (Example: Baansi Ka Khala in Satagaad) have been restored with soft engineering structures to augment the groundwater as well as surface water, which helped to increase the flow in the spring. The spring water (gravity flow) has been collected in a storage tank of 7.5 Kl, chlorinated and distribution system. The overall contribution for all the work done related to this are in the ratio of 90:10 i.e. 10 % of the project cost was by way of Shramdaan or Anshdan by the community. The operation community during the post project will be looked after by the gram panchayat kosh (account). Further in the focused group discussion it is understood that WUG/Stakeholder own the infrastructure created and maintain the scheme and for that Water User Group fix and collect the amount for maintenance. Based on physical verification and interaction with the PIA, the infrastructure created is durable and may serve for another 20 years or so. However, the source water sustainability is largely dependent on the rainfall and protection of natural vegetation and soil in the catchments of the springs. This component of the project has benefitting about 26 households in Satagaad and 21 households in Ukai by way of clean (chlorinated) and safe drinking water supply. Because, the water supply to every home has saved their time to collect the same and utilize the time to work in their field and livestock promotion. The PIA seasonally collect (two times) water samples and get it tested in the laboratories. Implementation of water supply scheme all households' beneficiaries participated as community cash contribution and deposited to user water group which was formed by beneficiaries. Total collected community cash contribution according to target of Detail Technical Report (DTR) is Rs.89000/- (Eighty-nine thousand rupees) cash deposited in the user water group Joint Account; this community cash contribution expended as 10% of the cost.

The beneficiaries have identified few immediate impacts like health improvements, introduction of vegetable cultivation and promotion of livestock in their villages. Awareness towards the water conservation and community hygiene, awareness, have increased due to the project, which has led to the creation of soak pit for grey water, and addressed some extent the breeding of mosquito in the villages. Because of the increase in the income due to livestock, they are able to pay the school fees of their children and purchase of few household essentials.

Catchment augmentation and spring water collection play a crucial role in sustaining water supply in the project villages. All the households' personal water connection is effectiveness after completing the Gravity water supply pipeline work. The project is showing the monitory benefit to the household. If we take Rs. 140/- at a conservative scale it can be estimated at Rs. 1680/- per household per year, besides other benefits like vegetable cultivation, livestock rearing etc. After and before the rainy season spring water collection chambers and other

structure cleaning work conducted by water user group members and beneficiaries. Building public awareness fosters a sense of community around water conservation. It encourages individuals, organizations, and communities to come together for shared initiatives, such as water-saving competitions, community gardens, and educational programs discussed during community meetings, trainings. Availability of clean water and proper sanitation facilities greatly affects health.

Table 4 Water Augmentation and supply

Sr. No.	Impact parameters	Response		
		Yes	No	Can't say
1. 1	Impact on the natural vegetation	60	20	20
2.	Increased cultivated land, vegetable cultivation	80	20	
3.	Increase in irrigated land	80	10	
4.	Water quantity and quality improvements	100		
5.	Improved water management	100		
6.	Access to water	100		
7.	Improved livelihood opportunities due to the project	100		00
8.	Household economic development	100		
9.	Better return to the time saved	100		
10.	Impact on health	100		
11.	Impact on livestock promotion	90		10
12.	Promotion of water related alternate livelihood activities			100
13.	Increased awareness	100		
14.	Willing to pay for the water service	100		
15.	Willing to maintain the infrastructure	100		

Recommendation: The source protection and augmentation are crucial, hence the extending the catchment treatment to the forested landscape, besides community landscape is important. There is huge potential of taking up the roof top harvesting in the individual household. Convergence of the activity with the MGNREGA and Integrated Watershed Development Project or degraded land restoration program of the state, or CAMPA, etc.

ii. Water Management System

The complex problem of managing water in Tehri Garhwal villages calls for creative solutions that take into account the region's particular topography and socioeconomic characteristics. In these areas, community-driven projects are essential since water is a valuable resource. Water management techniques center on sustainable measures including rainwater collecting, check dam construction, and the restoration of traditional water sources like springs and ponds. Optimizing water utilization also requires promoting water-saving practices in agriculture and putting in place effective irrigation systems. Villagers are further empowered to adopt responsible behaviors through education and awareness programs on water

conservation. Furthermore, incorporating contemporary technologies—like drip irrigation and solar-powered water pumps—can maximize effectiveness while reducing environmental impact. In order to ensure the sustainability and resilience of water management systems in project villages and protect this important resource for present and future generations, cooperation between local communities, governmental bodies, and nonprofit organisations is imperative. The Himmotthan society, Tata trust in collaboration with the Titan company Ltd. took an initiative to sustainably manage the in-situ water by way of augmenting and demand side management, which includes at domestic and agriculture practices.

For the impact assessment, village Saabli, Panyar Khala watershed, Jaunpur block and documented the component. About 25 PIA members have been involved in the creation of infrastructures such as Source collecting chamber, HDPE Pipelines, 20 Kl RCC Tank to irrigate about two ha land. The intervention includes; Village level meeting and documentation of water requirement, equity, cropping pattern, etc. Base line survey was done for village water budgeting, agriculture survey, villagers' opinion and agreement, possible formation of farmers group and village committee and permission for the implementation of the project in the village. Detail technical report was prepared, which includes creation water infrastructures, cost-estimation, implementation schedules and handing over to the beneficiary for future management. Under the component, trenches, percolation tank, check dams, etc. has been made in the catchment areas. To monitor the water discharge from source, Water recorder system is being installed, this facilitated the beneficiaries to hour to hours' water distribution to household and address the water use efficiency. The overall contribution for all the work done related to this was in the ratio of 90:10, 10 % of the labour provided will be Shramdaan, 10 % of it will be Anshdan by the community. Water User Group has been created to take care of the maintenance and equity. At present thirty-five beneficiaries are accessing the facilities in raising crops.

The project seems to have long term impacts due source water protection and demand side management approach. The community is in the opinion that the sustainable source of water helping them to properly plan their cultivation. As expressed by one of the beneficiaries that "when we get continuous supply of water, we can decide proper cropping pattern and, in a position, to grow cash crops, we can harvest crop in time and so get better market and earn more". It is evident that due to change in cropping pattern and introduction of cash crops such as potato, capsicum, onion, garlic, cabbage, French beans & Chili, increases the income of beneficiaries.

Table 5 Impact from the water management system, Saabli village

Sr. No.	Impact parameters	Response		
		Yes	No	Can't say
1. 1	Impact on the natural vegetation	80		20
2. 2	Increased cultivated land	80	20	
3.	Increase in irrigated land	100		
4.	Climate resilience cropping, vegetation	100		
5.	Water quantity and quality improvements	100		
6.	Improved water management	100		
7.	Access to water	100		
8.	Improved livelihood opportunities due to the project	90		10
9.	Household economic development	100		
10.	Better return from the cultivation	100		
11.	Expansion in agriculture activities	100		
12.	Impact on livestock promotion	80		20
13.	Promotion of water related alternate livelihood activities			100
14.	Formation of SHGs, Farmer Producer Organization if any, etc. due to the project		100	

Recommendation: The source protection and augmentation are crucial, hence the extending the catchment treatment to the forested landscape, besides community landscape is important. There is huge potential of taking up the roof top harvesting in the individual household. Convergence of the activity with the MGNREGA and Integrated Watershed Development Project or degraded land restoration program of the state, or CAMPA, etc.

iii. Catchment Area Protection, Recharge

In the context of Himalayan landscape, in particular, the protection of catchment areas and their recharge are essential elements of comprehensive water management systems and water smart villages. Because the area is vulnerable to both water scarcity and environmental degradation, protecting catchment regions is crucial. The preservation of natural ecosystems, which includes forest cover, grass land and herbs/ shrubs that support groundwater recharge and water retention is one of the protection methods. In addition to stabilizing the soil, rainwater harvesting, reforestation encourages infiltration, which refills aquifers and maintains surface water supplies. Furthermore, by reducing sedimentation in rivers and streams, erosion management strategies support the preservation of ecosystem

integrity and water quality. In order to protect catchment regions, community involvement is essential for enforcing laws and encouraging sustainable land-use practices.

To address the issues related to various environmental and water scarcity issues, the organization went for spring shed management, a method of conserving and managing springs for long-term sustainability of spring water. Further, the significance of this strategy has increased as conventional spring sources have begun to dry up or become polluted. It has other advantages like, site specific intervention of soil and moisture conservation and rainwater harvesting structures, increased residing time of water in the catchment, which helps to increase the infiltration and groundwater augmentation, reduction in soil erosion, which helps to improve the water quality, increase the community participation and hence promote the equitable water sharing, etc.

To document the impact of the component Chopriyal Gaon and Manjyar Gaon of Chamba block was visited. The organization followed a systematic approach in the implementation of the project and following are the approaches followed by the organization:

Participatory resource assessment and documentation. Three springs, Molani and Birakholi of Chopriyal gaon and Heit Devta of Maniyar Gaon have been treated under the project component. As per the baseline study report carried by the agency in Chopriyal gaon, the water audit was deficit with Molani and Birakholi, with -5489355 liter and -196874 liter per year against the total water demand of 5748555 lit and 2133224 lit per year of 130 and 90 persons, respectively, which was huge. Similarly, in Maniyar Gaon the annual water deficit was -4152164 lit against the annual demand of 4215750 lit of 210 number population. The agency carried a detailed mapping of the springs, including geology & aquifer, soils, geomorphology, landuse/ land cover, slope, drainage pattern, spring discharge, surface runoff against to the rainfall, etc. to locate various soft engineering measures such as contour trench, recharge pond/ trench, gully plug structures, and also afforestation/ reforestation & agro horticulture in the catchment areas of these springs. One more important aspect observed during the visit was social fencing, community are protecting the catchment from grazing, i.e. by not allowing their respective livestock by not allowing in the catchment area, which is under the treatment. Under the component two ha and three ha land was treated in Chopriyal Gaon and Maniyar Gaon, respectively. In Chopriyal Gaon, the agency constructed 220 mtr trenches (346.5 Cum), Recharge Pond- 10 Nos (67.5 Cum) and 6 Nos Check dam; where as in Chopriyal Gaon, 440 trenches (560.8Cum), 11 Nos (83.7Cum). Besides these engineering structures, they planted about 200 Plants consists of Bimal, Semwla , Guryal, Banj in the catchment areas. All the activities they carried were only in the private and community lands with community

participation. These interventions helped to revive the springs and helping to meet the village water demand.

Table 6 Impact of catchment area protection intervention

Parameter	Chopriyal Gaon	Maniyar Gaon
Effective recharge created (Mil.ltr equivalent)	0.7452	1.1601
Contribution by the beneficiaries	10% in the form of Shram daan/ Ansha daan	10% in the form of Shram daan/ Ansha daan
Increase in the spring water yield (Yes/ No)	Yes, average 0.8- 2 liter per minute during dry months	Yes, average 0.56 to 2 liter per minute during dry season
Soil erosion and other pollutant loads in the spring water	Nil	Nil
Physical conditions of the structures	Good	Good
whether structures created optimum to the area	Optimum	Optimum
Survival and growth of the saplings (plantation)	Adequate with 90% survival	Adequate with 90% survival
Increase in the natural regeneration	55%	50%
Level community participation the project component	85%	88%
Maintenance of the infrastructures	By the water user groups or other youths and expenditure will be met from the Gram Kosh	By the water user groups or other youths and expenditure will be met from the Gram Kosh
Equity, gender participation	100 %	100 %
Conflict if any	Nil	Nil
Improvement in to the water access	100%	100%
Time taken to collect water	within 30 minutes	Within 30 minutes
Impact on the cultivation	Moderate	Moderate
Impact on human health	Highly effective	Highly effective
Impact on the livestock promotion	Very good	Very good
Impact on the water conservation	Good	Good

The project is effective in-terms of asset creation and recharge area creation, increase in the spring discharge and community participation and equity. The catchment area also falling within the forest area, which has greater potential to augment the ground water due to its size and location. But the agency could not extend its activity due in accessible to the forest area.

For that the agency has to build relationship with the Vanpanchayat and tripartite agreement with them to implement the spring-shed activity in the forested area also.

iv. Precession irrigation systems

The use of precession irrigation systems in agriculture is a cutting-edge method of managing water. These systems optimize moisture levels and reduce waste by accurately delivering water to crops through the use of cutting-edge technology. In contrast to conventional techniques, precession irrigation focuses on the plant's root zone, facilitating effective water absorption and encouraging robust development. Precession techniques provide farmers with unparalleled control over water distribution, resulting in increased yields, decreased resource consumption, and enhanced sustainability. This control can be achieved using drip irrigation, micro-sprinklers, or automated pivot systems. Precession irrigation technologies are transforming modern agriculture by combining efficiency and precision, providing a method to farm more sustainably and productively.

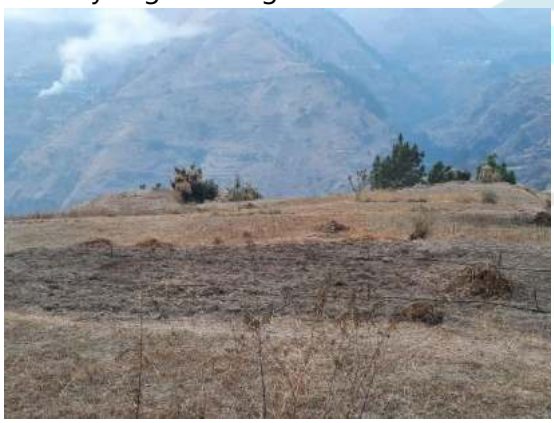
Under the project four individuals (two in Chamba block and one each in Thouldhar and Jounpur block), were provided assistance. For the impact assessment Shri. Nain Sing Gusian, Kansyud, Salda panchayat, Thouldhar block and Shri Parvesh Dabral, Chopriyal Gaon, Chamba block was interacted. Following are the details of the intervention and impact of the project component:

Table 7 Impact of Precision irrigation on the beneficiary

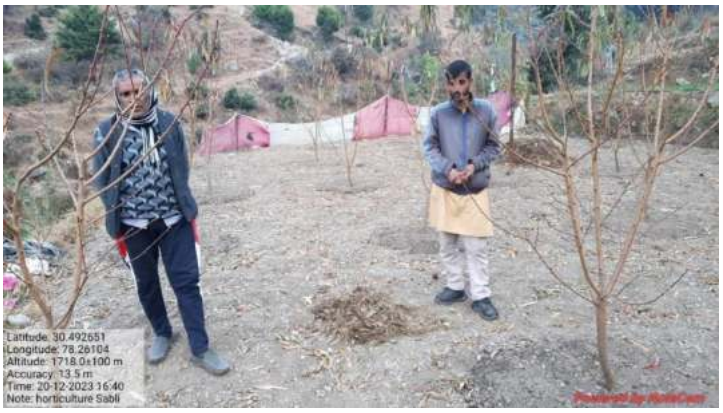
Parameter	Shri Nain Sing Gusian	Shri Parvesh Dabral
Occupation	Farmer	Farmer
Availability of irrigation prior to the project	Nil	Nil
Source of irrigation	Spring water	Molhani (spring) Source through tap water
Intervention	Taping the water and use of drip irrigation	Construction of LDPE Tank of 20 Kl and sprinkler and drip irrigation
Cost (Rs)	83835.00	Rs. 40000.00
Contribution by the beneficiary	20%	20%
Amount of land brought under the precision irrigation	35 nali	15 nali (0.1 ha)
Present Cropping	Horticulture development - Apple orchard (nursery and plantation), Vegetable production	Cash crops: Pea and potato in Rabi and pea, cabbage in Kharif season 2 playhouses of 100 sq m in which he has planning to grow high value crops like tomato and capsicum
Before the project	Only vegetable was grown occasionally	Only vegetable was grown

Cost of development per year, including annual maintenance (Rs)	60,000.00 to 80,000.00-	Average 20000.00
Estimated return on investment (Annual) Rs.	350000 to 400000	1 Lakh in each Season
Is there any better supply chain available to the produces	Yes	Yes
Level satisfaction due to the project in %	100	100
Replicability in %	100	100

There are no immediate challenges to the project and to the beneficiaries as there is not much intensive cultivation is in the village. In the future if more demand comes from other farmers, then the availability of water to the beneficiary would be lowered and Mr. Dabral may also move to dry land cultivation or horticulture. Upscaling can be seen in the case of Mr. Dabral who has initiated poly house cultivation looking at the available market in the area, because the hilly vegetables get better return due to its season of cultivation.



The water smart project component may face few challenges related to the source water depletion, contamination, climate change impact and increasing cost to maintain the water quality and sustainable supply and conflict. Topography, urbanization, deforestation, and environmental issues impact water availability and quality. It is therefore suggested further increase in community participation through clustered micro watershed approach by extending the project work to the forested area. The agency has already planted more than 3500 saplings of forestry tree species in the recharge areas of the watershed, which should be continued through community participation, especially Vanpanchayat and Panchayat bodies. The implementation of bio-engineering measures such as soil and moisture conservation, rainwater harvesting structures and increase the tree canopy cover for the long-term sustainability of the project in the area. For the enhancement of the site-specific activities and ridge valley approach of watershed conservation, the forest department can be consulted and



tripartite agreement with the Vanpanchayat and Forest Department will be a possibility to extend the project work in the forest area. Explore the further possibility to converge the rural development activities with MGNREGA and Integrated Watershed Development Projects, Agroforestry Programs, etc.

Recommendation for Water smart villages

The water smart project component may face few challenges related to the source water depletion, contamination, climate change impact and increasing cost to maintain the water quality and sustainable supply and conflict.

Topography, extension of settlements, deforestation, and environmental issues impact water availability and quality.

It is therefore suggested further increase in community participation through clustered micro watershed approach by extending the project work to the forested area.

The agency has already planted more than 3500 saplings of forestry tree species in the recharge areas of the watershed, which should be continued through community participation, especially Vanpanchayat and Panchayat bodies.

The implementation of bio-engineering measures such as soil and moisture conservation, rainwater harvesting structures and increase the tree canopy cover for the long-term sustainability of the project in the area.

For the enhancement of the site-specific activities and ridge to valley approach of watershed conservation, the forest department can be consulted and tripartite agreement with the Vanpanchayat and Forest Department will be a possibility to extend the project work in the forest area.

Explore the further possibility to converge the rural development activities - MGNREGA and Integrated Watershed Development Projects, Agroforestry Programs, etc. and Forestry projects like CAMPA, Namami Gange, degraded land restoration, biodiversity conservation, etc.

Project Component: Livelihood promotion activities

The socioeconomic growth and sustainability of these communities in Uttarakhand's steep villages depend critically on the execution of livelihood activities programmes. The villages of Uttarakhand, which are located in difficult terrain, deal with particular difficulties such little arable land, erratic weather patterns, and remote location. Because livelihood programmes give locals a source of income other than agriculture, they are essential in empowering the community. Frequently, these programmes incorporate skill development activities that are specific to the resources and cultural legacy of the area, like training in small-scale enterprises, animal husbandry, tourism services, and handicrafts. Livelihood programmes reduce poverty, strengthen community resilience to natural disasters, and slow the migration of people from rural to urban areas by diversifying sources of income. Furthermore, these initiatives support self-sufficiency and sustainable development by encouraging entrepreneurship and

intercommunal collaboration, which eventually enhances the general prosperity and well-being of Uttarakhand's highland villages.

Following are the project sub-components and impact assessment:

Large ruminants-based Interventions and enterprises

Large or big ruminant-based businesses and initiatives are crucial to regional and local agricultural economies because they have a big impact on rural livelihoods, environmental sustainability, and food security. Large ruminants, like cattle, buffaloes, are valuable resources that can be used for a variety of tasks. They produce milk, dung, milk, as well as draught power and other necessities in the project villages. By cycling nutrients through the soil, the inclusion of these animals in farming systems improves crop yield and soil fertility while also providing rural households with a variety of revenue streams. Large ruminants also promote social cohesion in many communities since they are symbols of wealth and cultural value. But their influence goes beyond neighbourhood boundaries; the dairy sectors have an impact on regional economies. Large ruminants have many advantages, but in order to prevent environmental damage and advance animal welfare, their management must be sustainable. All things considered, large ruminant-based interventions are a cornerstone of agricultural development, addressing the complicated issues of food production, sustenance and livelihood sustainability while promoting resilience and prosperity in rural environments.

Under this component the project assistance was extended to purchase milking animal and cattle shed, because both are complimentary to each other as the weather of the project village demands cattle shed.

Animal Purchase

A rural person's purchase of an animal in a project village can have a significant effect on their standard of living and the welfare of the community. The animal serves as a sustainable asset that can produce money through the sale of excess milk, offspring, or even dung for fertiliser, in addition to being a source of milk and dairy products for the household. This extra source of income has the potential to reduce poverty and raise the household's overall standard of living. Additionally, the excrement improves soil fertility and increases crop yields by contributing organic fertiliser to the agricultural ecosystem. Consequently, the acquisition of a milking cow has the capacity to stimulate favourable socio-economic changes in the project village, promoting resilient development in response to climate change.

Background of the respondents in sampled villages:

- Average number of family numbers adult and children: 3 and 2
- Avg. land holding of the beneficiaries in nali (1 nali = 0.049 acre or 0.02007 hectare) – 15 (0.315 ha)
- Primary Occupation: Agriculture
- Avg. family income (Rs): 55,000

Impact:

- Av. Cost of purchase -Cow/ Buffalo (Rs): 40000
- Av. Beneficiary contribution: Rs. 15000

- Selection of the beneficiaries: SHG members
- Pay-back period: Monthly 6-12 instalments
- Feed management: Stall feeding
- Water use: Piped water
- Animal Waste (dung) management: Compost and manure
- Milk yield kg/ day: 3 min. to 7 max.
- Milk Sold: Rs. 42/-
- Input cost: Rs. 1500 to 5000
- Time spent: 6 to 8 hrs
- Value addition: Nil, one example of Ghee, Dahi, Khoa
- Asset creation: Help to meet daily requirements
- Animal health management, support: Cattle camp, Insurance in one case

Wisdom: Anything more you want to suggest for the future: Insurance to the cattle, irrigation to cultivation to meet the fodder demand, Awareness of different other schemes of Govt, Pvt. firms and NGOs

Overall performance: Project received well, helping the rural poor in meeting their daily requirements, asset creation (one case), self-employed, etc.

Advantage: Improved breed, increased milk production, milk is being sold to the cooperative ensuring the market access and optimum market value to the milk, which also helping them to pay back the loan, meeting the targets of dairy cooperatives, etc. Animal health has been ensured by Himotthan society.

Threat: In the absence of insurance there can be insecurity, ever increasing input cost may make the component non-attractive in the near future.

Recommendation: Impart value addition skill, extend the loan to the SHG level instead of individual to enhance the enterprise, linking with State livelihood mission, Insurance to reduce the risk, promotion of green fodder by complementary scheme and fodder preparation using nominally available agri- residues and leaf forage, etc.

Cattle-Shed

Programmes for financial support to cattle-sheds, which is aimed at impoverished rural communities, are essential for promoting sustainable livelihoods and economic development. Through the provision of financial aid for the building or renovation of cattle shelters, these programmes help rural disadvantaged communities improve their methods for managing animals and boost output. A well-built cow shed lowers the danger of disease, provides shelter from inclement weather, and enhances the welfare of the animals as a whole. In addition, these support programmes frequently go beyond the creation of infrastructure and include training courses on animal husbandry, medicine, and managing feed, giving recipients the tools they need to raise animals successfully. In the end, these interventions support food security and resilience in addition to reducing poverty by increasing household income through the sale of dairy products and animals.

Background of the respondents in sampled villages:

- Average number of family numbers adult and children: 8
- Avg. land holding of the beneficiaries in nali (1 nali = 0.049 acre or 0.02007 hectare): 10.5 (0.211 ha)
- Primary Occupation: Agriculture
- Avg. family income (Rs): 73,000

Component response

- Number of shed and per unit cost (Rs.): 130000
- Beneficiary contribution: 10000
- Pay back mechanism/ number of instalments: 4-8 months
- Av. Animal in a shed: 1-2
- Prior to the shed the animal stay: No proper floor, nali, feeding pot, etc.
- Improvement in the health of the animal: Yes (100%), reduced insect, warm and other problems
- Change in the Feeding practice: Stall feeding
- Improvement in the yield: Milk yield, self-consumed and sold and market price: Yes, 2-2.5 kg difference (3 kg/day sale, 2 kg/day self-use)
- Improvement in the market value: No (100%)
- Impact on water and fodder use: Fodder loss reduced; requirement of water reduced
- Asset building: Fulfil daily requirements, Provide good education to the children's
- Animal waste management: Compost/ manure
- Impact on the natural vegetation: No such observation, one observation on earlier vegetable do not survive due to the presence of acid in urination in the agri area.
- Breed improvement if any: Nil
- Anything more you want to suggest for the future

Design constraints: Current may not help the beneficiary to increase the number animals and modify the structure.

Suggestion: Design flexibility and complimentary animal excreta management to further enhance the hygienic conditions in the housing premises

Goat shed

Beneficiary background:

- Avg. number of family members: 4
- Avg. land holding of the beneficiaries in nali: 7
- Avg. family income (Rs): 30000

Component:

- Number of animals per shed: 11
- Beneficiary contribution Rs: 2000: 19900

- Selection of the beneficiaries: Member of the SHG
- Pay back mechanism/ number of instalments: 3 months
- Prior to the shed the animal stay: In open area, Shared space with cow/buffalo
- Change in feeding practice: Reduced grazing and stall feeding
- Improvement in the health of the animal: Yes (100%)
- Asset building:Fulfil daily requirements, helping in the lean time of financial requirement
- Impact on the natural vegetation: Yes, graze nearby, but reduced pressure on the forest area
- Improvement in the yield: Yes, sale in market, male goat – 10,000; Female goat - 7000
- Impact on water and fodder use: No
- Asset building:Fulfil daily requirements
- Water conservation: No
- Animal waste management: Compost, Agri-use

Suggestion: Design flexibility and complimentary animal excreta management to further enhance the hygienic conditions in the housing premises.

Purchase of goat for breed improvement

Financial support for the acquisition of goats intended to improve breeds in project areas may be very promising for improving rural communities' socioeconomic standing. Access to superior goat breeds that are more tolerant of the harsh terrain and climate typical of hilly areas is made easier with this help. These kinds of programmes improve the genetic variety and productivity of goat populations in the area by providing help for the purchase of superior breeding stock, which increases meat output.

Beneficiary background:

- Avg. number of family members: 5
- Avg. land holding of the beneficiaries in nali: 6
- Avg. family income (Rs): 60000

Component:

- Number and per unit cost of purchase Rs.: 5, 500/unit = 25000
- Beneficiary contribution Rs.: 9000
- Selection of the beneficiaries: Member of the federation
- Pay back mechanism/ number of instalments: 10 instalments
- Type of initiatives – hybrid/ genetic: Local, black variety
- Impact on the grazing and feed requirement: Limited graze in the forest
- Water resources conservation: Piped water
- Waste management (waste to wealth:) Compost, Agri-use
- Breed/ variety and Animal health management support: Veterinary camp, Govt veterinary, (not-insured)
- Milk / meat yield, self-consumed and sold and market price: Sale in market, 7000/unit

- Any increase in the input cost and market value: Male goat – Rs. 11000, Female Goat- Rs 7000
- Higher Income generation from the breed improvement and asset creation: No
- Issue related to the Adjustment to the local weather/ climate, Resistance to disease and climate related illness: Yes, they suffered with cold and fever during the winter
- Up scaling of the activity: Yes, more numbers procured/ breed, it is a good initiative and help to improve livelihood
- Anything more you want suggest for the future Awareness about animal health

Recommendation: Beneficiaries should acquire essential skills to maximise the management and care of their goat herds, maximising the potential for income production and poverty alleviation at the local level, through focused animal husbandry and healthcare.

Fodder work

Providing saplings to villagers for use as fodder is a proactive way to improve livestock management and agricultural sustainability in rural areas. Communities are enabled to grow wholesome, locally sourced feed supplies by receiving fodder saplings, which lessens their reliance on outside resources and lessens the effects of droughts and other environmental problems. This programme encourages soil protection and ecosystem biodiversity in addition to guaranteeing a steady supply of high-quality cattle feed. Additionally, these programmes help rural people become more resilient and self-sufficient by teaching villagers about appropriate agriculture methods and sustainable land management practices. Consequently, the supply of fodder saplings acts as a spur for socioeconomic growth, enabling communities to prosper in the face of variable farming conditions.

Beneficiary background:

- Avg. number of family members: 6
- Avg. land holding of the beneficiaries in nali: 6
- Avg. family income (Rs): 45000

Component:

- Assistance received Cost and Technology (Rs) please explain the type of work: 400 plants (Average)
- (Banjh, Budhyal, Bimbal, Kharak)
- Source of fodder in the past and present: Forest and agri residue
- Nature of the fodder selected (drought resistant, etc.) for the project: Quercus cerris, Averrhoa bilimbi L. Celtis australis (Drought tolerant)
- Value addition (if any) and self-consumption/ sold, Market?: Nil/ No
- Per day fodder production: 1 year plant (in juvenile stage), not producing anything yet
- Any impact on the animal health and nutrition: May have positive impact once they start producing/ feeding
- Increase in Milk and meat production (if any): May improve
- Any impact on the livelihood of the community: Will be going to have positive impact
- Cost reduction in the fodder supply: Yes

- Impact on the local ecology due to fodder work (natural vegetation, soil erosion, etc.): May have positive impact

Recommendation: Too early to recommend on the component. Looking at gestation period of the species in use, there is every possibility to introduce few grass species as inter cropping to meet the immediate requirements

Orchard

Supporting the growth of orchards in project communities is a calculated investment in environmentally friendly farming practices, economic expansion, and sustainable development. This programme makes it easier to grow fruit trees, such apricots, which are ideally suited to the region's particular climate. Through the provision of essential resources, such as money for agricultural equipment, irrigation systems, and saplings, together with instruction in orchard management techniques, the programme enables local people to enhance agricultural production and diversify their sources of income. Additionally, orchard development helps to preserve vulnerable Himalayan habitats by preventing erosion, enhancing biodiversity, and promoting soil conservation. As these orchards get bigger, they help rural households have a stable source of income that promotes economic growth and lessens reliance on conventional farming methods.

Beneficiary background:

- Avg. number of family members: 7
- Avg. land holding of the beneficiaries in nali: 12
- Avg. family income (Rs): 50000

Component:

- Assistance received Cost and saplings Av No.: 36
- Average rate of survival %: 85
- Source of funding and your contribution if any: Rs 100/pit/sapling
- Land-use before Orchard: Growing vegetable (Olericulture) – peas, cabbage, potato
- Orchard practice: Irrigated
- Income generation: 1-year age
- Impact on environment: Tree cover and biodiversity; Water use efficiency: 100 agree
- Community development and gender equity: 100% agree

Recommendation: Too early to recommend on the component. Looking at gestation period of the species in use, there is every possibility to introduce inter cropping on the pattern of Horti-vegetable or Horti-medicinal plants, to get some immediate return. Few skills and training related to pest and disease management might be required in the area for that the KVKs or G B Panth University of agriculture and horticulture can also be consulted.

Activity: Input supply-based interventions

Farm machinery

Power-weeders are innovative agricultural machines designed to streamline the labor-intensive processes of weed removal and soil cultivation. These adaptable tools offer numerous benefits crucial for advancing agricultural practices within the project villages of the Tehri Garhwal District. The procurement of power-weeders marks a significant stride toward modernizing and refining agricultural techniques in these rural areas. By prioritizing efficiency, sustainability, and economic growth, this initiative not only elevates local livelihoods but also fortifies the resilience of these communities against the evolving challenges in agriculture. This investment in agricultural mechanization underscores a commitment to the comprehensive development of Himalayan agriculture and the overall well-being of the beneficiary.

Beneficiaries of Purchase of power-weeder was interviewed to understand the project component and its impact on the beneficiary in terms of their income and ease of agriculture practice and component as whole.

The component is found to be effective, however it was only introduced in few villages and one cluster, i.e. Thauldhar. Looking at the impact and response farmers are interested in mechanizing the cultivation work, hence, the power-weeder found to be effective in the project villages. Following table is the summery of the response from the sampled respondents from Thauldhar cluster.

Table 8 Impact of supply of farm machinery on the beneficiary

Parameter	Average response
Avg. number of family members - Adult	5
Avg. number of family members - Children	2
Avg. land holding of the beneficiaries in nali	32 nali
Primary Occupation	Agriculture
Avg. family income (Rs)	50000
Cow/Buffalo	1
Cost of power-weeder	Beneficiary is not aware, whereas Rs. 12195 is mentioned in the project document
Source of funding	Himmotthan
Your contribution to the cost of machine	12000
Selection of Beneficiaries	Famers, BPL
Pay back mechanism	1 instalment, Paid in cheque
Total agriculture land brought under the application of power weeder	25 nali
Number of time used in a year	3-4 times in a year used in all the agriculture seasons
Running cost of using the machine (Rs)	1500
Maintenance related constraints	Required due to wear and tearing

Do you need any skill to operate and maintain the machine	No
Are you renting it to the fellow farmer	Generally, No, one responded that she has given on rent, Rs. 300/hr
Is it easing you in carry the cultivation, if yes how much percentage or reduced number of man days working towards de-weeding	Yes, 75% labour and man days reduced and cost effective
Do you see any difference in the productivity, if yes season wise	No differences has been observed
Any impact on the amount of land cultivated	Nil
Impact of crop rotation and introduction of cash crop	Nil, in few cases it was reported that it assisted in cultivating summer crops by digging deep furrows for sowing
Anything more you want to suggest for the future	Timely servicing or accessibility to service, can also be extended to more village members

Suggestions and recommendations: Mechanization of the cultivation is in demand, hence there should be a need assessment along with cultivation practice to identify the various agriculture implements required to ease the farmers to bring more land under cultivation. Respondents need to know the actual cost and amount subsidy they receive for the equipment provided to them is also necessary to increase the number farmers coming forward to avail the facility. Strategic location of the service center or skill development of the youth to extend timely required services to these machinery is important for the progress of the component.

Enterprise Promotion

Poly-house

Providing rural residents with polyhouses so they may grow vegetables is a game-changing way to boost agricultural output and encourage sustainable rural livelihoods. High-value vegetables may be grown year-round in polyhouses thanks to their controlled habitat and protective circumstances, which make them resistant to changes in the outside weather. By providing technical advice on crop choices, planting methods, and pest control together with financial support for the building of polyhouses, rural communities are able to maximise vegetable production and diversify their sources of income. This assistance boosts local economies and generates job possibilities. Additionally, it reduces the amount of water used and lessens the hazards brought on by climate change and erratic weather patterns.

Beneficiary background:

- Avg. number of family members: 6
- Avg. land holding of the beneficiaries in nali: 5
- Avg. family income (Rs): 40000

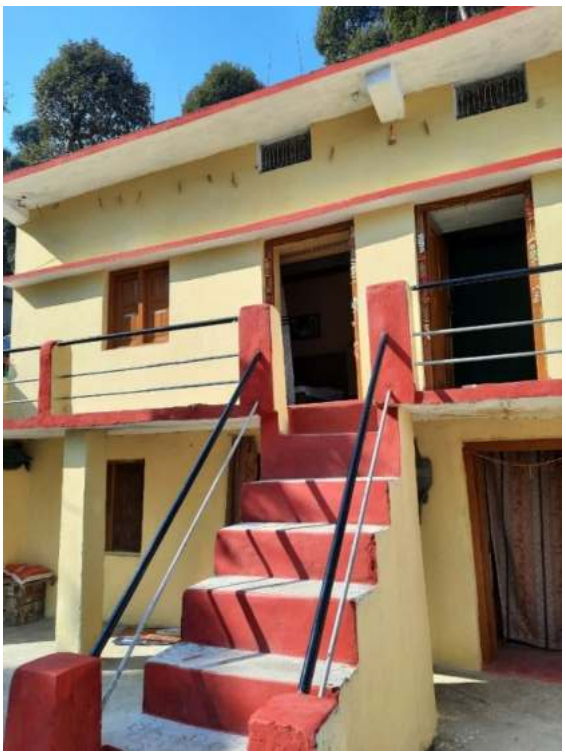
Component:

- Assistance received Cost and saplings: Poly house material
- Cost per unit Rs: 10,200
- Unit area (size) and Total area covered 100 sq m
- Post technological support: PIA monitoring and suggestions
- Capacity building: Nil
- Type of crop (variety) and crop diversification: Vegetables (Tomato, Capsicum, Cabbage)
- Helped in seasonal extension/ climate resilient: Yes, prevent damage from snowfall and provide optimum temperatures for survival
- Source of Irrigation and system and savings in the water use: Water Stored in tank
- Fertilizer, insecticide and pesticide use: Pesticide used
- Increase in the productivity/ yield: Yes, 20 kg increased in capsicum production
- Increased income/ profitability: 100 % agree that it is profitable
- Any suggestions you want to make: Need more monitoring of crop by the expert, skill development

Recommendation: The component is one of the popular among the village livelihood program in the project villages. Few skills and training related to pest and disease management is essential for early detection and take appropriate action. Linking the component with KVKs may help the beneficiary to explore few resistant varieties.

Support to Home Stay

Helping residents in project villages create home stays is an example of a sustainable community-based tourism strategy that promotes both cultural preservation and economic growth in the area. Financial support, together with technical advice and training courses, enables local families to maintain their cultural heritage and traditional way of life while producing warm lodgings and genuine experiences for tourists. By encouraging home stays, we help visitors discover the Himalayan region's unique cultural diversity and scenic splendour, which promotes intercultural dialogue and understanding. Furthermore, home stay earnings give rural households additional money, diversifying their sources of income and lessening their reliance on agriculture. Additionally, by encouraging sustainable tourism practices and reducing tourists' ecological imprint, house stays promote environmental stewardship.



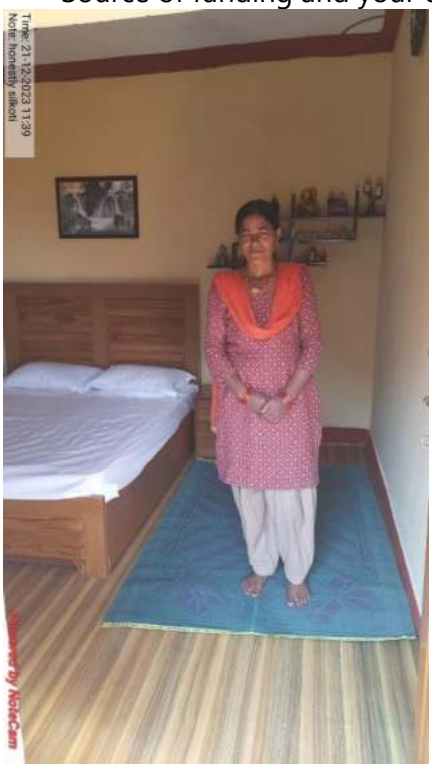
Beneficiary background:

- Avg. number of family members: 4
- Avg. land holding of the beneficiaries in nali: 12

- Avg. family income (Rs): 1 lakh

Component

- Total cost Rs: 2 lakhs
- Source of funding and your contribution if any: Himmothan (80%) and self (20%)



- Training program, skill development: Yes, guide training programme, hospitality training, capacity building training
- Kinds of support: Repairing, furniture etc.
- Local business opportunity: Yes, touring based business
- Income generation: Yes, help in income generation
- Any significant cultural exchange: Hilly Cuisines experience and vice versa
- Tourist satisfaction: Satisfactory
- Branding, collaboration: Not yet
- Any suggestions you wish to make: Marketing Promotion of home stay

Recommendation: Training on Yoga, naturopathy, herbal use, etc. may make them more capable to attract the tourists. Immediate action to register with the State homestay program so that the details will be uploaded in the state portal.

House yard poultry

One important intervention that can greatly enhance food security, nutrition, and money production in rural communities is to assist the impoverished in promoting house yard poultry.

Households can effectively utilise existing space to construct small-scale chicken farms in their house yards by offering financial aid, training, and technical support. House yard chicken farming has a number of benefits, such as low startup costs, little infrastructure needs, and convenient access to feed supplies. Furthermore, chicken farming helps rural communities diversify their sources of income by providing a dependable source of meat and eggs that are high in protein for domestic use as well as a means of earning a better livelihood.

Support: Chicks provided by the Himotthan, Mostly Pahari variety

At present it has been increased to 20 number and 13 chicks.

10 – 20 eggs per day available

Benefit: Rs. 12,000/- year by selling egg and 3-4 thousand by selling chicken

Health impact can be seen due to consumption of egg and meat.

Recommendation: Proper designing of the poultry shed is essential, because at present it is not given due importance. This may also be included under loan facility so that it can be done professionally and increase the return from the activity.

Service Sector based enterprise promotion

Vehicle for Vegetable marketing

This help reduces logistical obstacles by enabling effective farm-to-market transportation, enabling farmers to reach a wider market and command higher prices for their produce. Produce quality is improved overall and post-harvest losses are minimised when veggies are delivered on time. Additionally, having direct access to markets gives farmers the power to cut out intermediaries and bargain for more equitable prices, which increases their revenue and sense of security. Additionally, the injection of transportation support boosts local economies by creating jobs and promoting ancillary sectors like auto repair and services. In the end, by guaranteeing that consumers receive wholesome product in an effective manner, the availability of vehicles for vegetable marketing strengthens food security, encourages rural development, and strengthens economic resilience.

Beneficiary background:

- Avg. number of family members: 5
- Avg. land holding of the beneficiaries in nali: 5
- Avg. family income (Rs): 144000

Component

- Source of funding and your contribution if any: Himmotthan, provide vehicle for veg marketing
- Vehicle technology and fuel efficiency: Normal vehicle, 9-10 km/ lit fuel efficiency
- Reduced time and better market access/ larger market: Yes, provide good value for vegetable growers
- Employment generation: Work as a driver- 12000/month

Recommendation: More such numbers is required to improve the transport efficiency of the remote village produces. More fuel-efficient vehicle, even battery-operated vehicle can also be considered to increase the reach out and profitability.

Thematic area Education and sports

Digital learning

Encouraging digital learning in project areas is a game-changer for closing educational gaps, empowering local populations, and promoting socioeconomic development in isolated places. Through the use of digital technology, people living in rural areas can now access opportunities and high-quality educational resources that were previously out of reach because of infrastructure limitations and remote location. With the help of digital learning initiatives, students can participate in personalized and interactive learning experiences that go beyond the limitations of traditional classroom settings and meet a variety of learning

needs. Beyond traditional schooling, digital learning equips people with digital literacy, entrepreneurship training, and vocational skills, opening doors to employment prospects in developing industries and economic empowerment. There is great potential to democratize education and reduce socioeconomic gaps through the promotion of digital learning as digital infrastructure grows and technology becomes more widely available.

Beneficiary background:

- Avg. number of family members: 7
- Avg. land holding of the beneficiaries in nali: 8
- Avg. family income (Rs): 60000

Component

- Assistance received Cost: Equipment's, Machines and furniture
- Number of collection and technology: 6 – computer, 1 – LCD, 7 – Table & chair
- Any income generation: Number of hours working and Income: 6 hours,
- Work as tutor in digital learning centre (500/ month for computer class and 300/month subject teaching is being charged)
- Objective/ Aim of the project: Provide educational source to the village youth and children
- Knowledge imparting mechanism: Classroom teaching and interaction
- Number of visitors/ beneficiaries 30
- Average age: 18-22 years
- Impact on education/ awareness: familiar with the technology like computer, internet etc.
- Impact on career advancement: Encouragement to learn computer as well as learning new things to become self-dependent

Recommendation: More intensive approach in digital education, to help their studies and get exposure to the online education, etc. English written and communication skill may increase the beneficiary in taking the education to the climax level.

Education & sports Activity

In recent years, the concept of holistic education, which emphasizes not only academic excellence but also social skills, mental well-being, and physical fitness, has garnered widespread recognition. Integrating athletics into the educational framework of institutions is indispensable for realizing this holistic vision. Far from being mere extracurricular endeavors, sports form an integral component of a comprehensive education. By including sports in the curriculum of schools and universities, educators nurture a well-rounded development in students. These activities, alongside facilitative education, play a pivotal role in fostering students' overall performance and well-being, promoting physical fitness, social adeptness, character growth, and academic achievement. Such holistic education equips students with the confidence and resilience necessary to confront and overcome future challenges

Under the component schools and colleges were provided sports and classroom aid to increase the school performance and motivate the students towards education and sports activities. The colleges and schools of the rural project areas require such facilities, for which the project component extended the following to the identified schools and colleges of the blocks.

- Sports goods: Badminton kit and poll/ net, volleyball set (poll, net and ball), carom, chess, and ground matt (75 x 45 ft).
- Class room furniture to high school – Bench and table set (35 numbers)
- Fencing material to the school to avoid the entry of cattle, and ball rolling out, etc.
- Organization of the inter school competition

Impact of the aid and activities under the component

In the colleges the sports have been given prime importance and students have represented at the District, State and even national events. Few of the students have even persuaded sports as their career and become PTI in colleges and schools. Following are the identified impact parameters

1. Goods are of good quality and supplemented the beneficiary greatly as the supply in the school was limited
2. The poll is of durable as before that they were using locally available wooden polls, which was not resistant to the force and weather
3. Because of the quality sports goods, the college is now in the position to organise inter college and inter school competition
4. Ground mat is of high use, because the ground one was used hurting the students while playing Kabaddi and kho-kho.
5. Because of the progress now the college has come under PM-shree and receiving more aid to the college
6. Furniture is of good quality and motivating students and increased the school attendance
7. In school it has been observed that about 20-25% students now interested in building career in sports and physical education
8. It is beginning in the school, actual impacts could be seen in the coming years as students participate and win prizes in the inter school competition

Suggestions: As the component is newly introduced and extended to the selected colleges and schools by the Himmotthan, in this regard, there is a need for sports assessment, identification of sports categories, and aid to further improve sports skills among the students. There should be monitoring and feedback mechanisms to be carried out by the agency to document the effectiveness of the aid provided. The beneficiary also suggested extending these facilities to other potential colleges in the block. Schools also want to support sports activities in the school.

Young Girls Group

Education details: BA 2nd year

Basis of selection: 10th pass (anyone)

Support: Financial support through this scheme

Impact: positive impacts among young girls and their parents, because they are more strengthen and independent in terms of finance.

Opinion on the CSR project and Corporate: This initiative is highly beneficial as it empowers communities like present beneficiaries to enhance their lifestyle and creates opportunities for sustainable livelihoods.

Suggestions and recommendations for the improvement in the project component: Support to open digital centres near the village and English language proficiency will help them further.

SHGs savings and individual level enterprises

Self Help Group (SHGs)

Under the capable leadership of Himmhothan Society, self-help groups have been established in the area over the past seven or eight years through a variety of donor programmes, such as NABARD, TATA Trust, and Titan, among others. These self-help organisations provide a forum for people to combine their resources, develop saving practices, and offer microcredit options to take care of their urgent needs. Members can obtain financial support by pooling their resources, which gives them the ability to overcome obstacles and seize possibilities. As a result, the community has greatly benefited from member savings and microcredit. These organisations give people a controlled environment in which to develop responsible saving practices and obtain microcredit facilities that are suited to their short-term need. Members benefit from increased financial empowerment and stability as a result, which helps them deal with unplanned costs, make investments in sources of income, and improve their general socioeconomic well-being. In addition, the cooperative character of these groups encourages members to feel supportive of one another and of one another, which creates an atmosphere that is favourable for group advancement and perseverance in the face of adversity. All things considered, creating self-help organisations for microcredit and savings is a critical first step in promoting community development and economic empowerment. Following are the brief on the observations made during the interactions:

- Average number of members in the SHGs interacted (numbers): 7 to 14
- Model of savings, saving habits: Monthly contribution of the members @ Rs. 100/month and intern, loan given to the members in 1% interest rate,
- Individual member's behaviour, financial literacy: Good, know about the interest and basics
- Purpose of the credit (burrowing): To support in family (to purchase good quality seeds, poly house, purchasing of high breed livestock, some personal expenditure, such as marriage, education fee, etc.)
- Pay back (re-payment) system and period of pay-back: 1-year maximum time to repay

- Average savings available with the SHG for credit: Minimum Rs. 40000 – 60000, in some SHGs it was in lakhs.
- Economic activities of the enterprises, business viability: Trying to start mushroom cultivation practices (initial phase), etc.
- Business Skill in the community/ individual: Developing gradually
- Increase in income of the group members, any assets created and livelihood development: Yes, TV, freeze, vehicle, sewing machine, poly house, drip irrigation, etc.
- Employment generation/ opportunities created: Yes
- Market link to increase the return: recently open to invest in Trishul
- Any potential risk: No, because it is operated within and trust among the villagers

Suggestions: The SHG members have gained proficiency in account keeping, etc. Link the savings with the Livelihood missions and SMEP initiatives of the State government may further enhance their activities. Technical support to the SHGs to enhance to their savings through SMEP, further finance from the Banks. Bank credit scheme can help them to initiate SMEPs, tourism, value addition to the locally grown agriculture products, etc.

Institutional Level Savings/Enterprises/credits

PUC and CSC

Employed 2 staff in the center. Charge Rs. 110 and Rs. 30 is deposited to the UL Transport deptt. Too early to comment on the functioning of the centre.

Dugdh Sangh, Chamba

Visit to Dugdh Sangh, Chamba:

Milk collected from 105 households, stored using Bulk milk cooler – 350 lit/day

2 Permanent employees and 12 temporary employees work for 2 hrs/ dayRs. 8-9 th. Per day business

Milk sold @ Rs. 52/ lit

Value addition: Butter, Ghee, Paneer, etc.

Threat: unsustainable supply and demand.

Suggestions: Improve supply chain for few products such as Ghee, Khova, sweets, etc. to avoid losses due to oversupply and less demand for milk and other products

Kisaan Suvidha Kendra, Chamba

Day business of Rs. 4000/ day

Annual profit of 1.5 lakh

60% to shareholders and 40% to Re-invest

Marketing: Seed, poultry feed, cattle feed, agri. Equipment/ tool, household items, etc.

Threat: E-commerce and other online marketing agency.

Suggestions: Making agreement with the manufacturers, wholesale dealers of products, and minimise the transport cost by signing an agreement with State Transport Corporation.

Annexure: Data collection format

Component-wise

ANIMAL PURCHASE

Name of the responder

Village Name:

Household size: Adult Children Landholding

Primary occupation: Annual family income:

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Cow/ Buffalo/ Goat, Number and per unit cost of purchase (Rs):
2. Source of funding and Rs:
3. Selection of the beneficiaries (criteria):
   Social inclusion: BPL/ SC-ST/Minority/Widow/ Landless/ Unemployed/ others
4. Pay back mechanism:
5. Feed management (stall feeding, grazing, alternate feed): Stall feeding, mostly available from the village
6. Use of Water in cattle/ livestock:
7. Waste management (waste to wealth):
8. Animal health management, support (veterinary service, insurance, etc.):
9. Milk yield, self-consumed and sold and market price, if sold how much/ day and value:
10. Input cost: Rs. /month
11. How many hours you work in cattle maintenance:
12. Value addition and Market access:
13. Anything more you want to suggest for the future

CATTLE-SHED

Name of the responder

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Number of shed and per unit cost (Rs)
2. Your share of contribution
3. Selection of the beneficiaries (criteria)

   Social inclusion: BPL/ SC-ST/Minority/Widow/ Landless/ Unemployed/ others
4. Average number of animals in each shed
5. Prior to the shed the animal stay
6. Improvement in the health of the animal
7. Change in the Feeding practice (grazing, stall feed, others)
8. Improvement in the yield: Milk yield, self-consumed and sold and market price
9. Improvement in the market value
10. Income generation from the cattle shed
11. impact on water and fodder use
12. Asset building
13. Animal waste management
14. Impact on the natural vegetation
15. Breed improvement if any
16. Anything more you want to suggest for the future

GOAT SHED

Name of the responder

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Number of shed and per unit cost (Rs)

2. Source of funding and your share of contribution

3. Selection of the beneficiaries (criteria)

Social inclusion: BPL/ SC-ST/Minority/Widow/ Landless/ Unemployed/ others

4. Average number of animals in each shed
5. Prior to the shed the animal stay
6. Improvement in the health of the animal
7. Change in the Feeding practice
8. Improvement in the yield: Milk yield/ meat, self-consumed and sold and market price
9. Improvement in the market value
10. Income generation from the goat
11. Impact on water and fodder use
12. Asset building
13. Water conservation
14. Animal waste management
15. Impact on the natural vegetation
16. Breed improvement if any
17. Anything more you want to suggest for the future

Purchase goat for breed improvement

Name of the responder

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Number and per unit cost of purchase (Rs)
2. Source of funding and your contribution if any
3. Selection of the beneficiaries (criteria)

   Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
4. Type of initiatives – hybrid/ genetic
5. Impact on the grazing and feed requirement
6. Water resources conservation
7. Waste management (waste to wealth)

8. Breed/ variety and Animal health management, support (veterinary service, insurance, etc.)
9. Milk / meat yield, self-consumed and sold and market price
10. Any increase in the input cost and market value
11. Higher Income generation from the breed improvement and asset creation
12. Value addition and Market access and employment generation
13. Issue related to the Adjustment to the local weather/ climate, Resistance to disease and climate related illness
14. Up scaling of the activity
15. Anything more you want suggest for the future

PROJECT: Backyard poultry

Name of the responder

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Number and per unit cost of purchase (Rs)
2. Source of funding and your contribution if any
3. Selection of the beneficiaries (criteria)
4. Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
5. Feed management (type and input cost)
6. Waste management (waste to wealth)
8. Breed/ variety and health
8. egg yield, self-consumed and sold and market price
9. Income generation from the poultry and asset creation
10. value addition and Market access
11. Upscaling of the activity
12. Anything more you want suggest for the future

FODDER WORK

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and Technology (Rs) please explain the type of work
2. Source of funding and your contribution if any
3. Selection of the beneficiaries (criteria)
   Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
4. Source of fodder in the past and present
5. Nature of the fodder selected (drought resistant, etc.) for the project
6. Value addition (if any) and self-consumption/ sold, Market?
7. per day fodder production
8. Any impact on the animal health and nutrition
9. Increase in Milk and meat production (if any)
10. Any impact on the livelihood of the community
11. Income generation
12. Market linkages
13. Cost reduction in the fodder supply
14. Impact on the local ecology due to fodder work (natural vegetation, soil erosion, etc.)
15. Any suggestions

Orchard

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and saplings (Rs)

2. Source of funding and your contribution if any

3. Selection of the beneficiaries (criteria)

   Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others

5. Area brought under horticulture

6. Land-use before Orchard

7. Orchard practice: Species, Soil and moisture conservation, irrigation, use of fertiliser, insecticide/ pesticide/ etc., climate resilience practice (selection of variety and resilient practice), any technology (sustainable) adoption

8. Income generation

9 Employment creation

10. Market access

11. Value addition, employment generation

12. Impact on environment: Tree cover and biodiversity; Water use efficiency

13. Community development and gender equity

14. Convergence or meet with the State/ national policy, etc.

Poly-house

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and saplings (Rs)

2. Source of funding and your contribution if any

3. Selection of the beneficiaries (criteria)

4. Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others

5. Technology adaptation/ transfer technology

6. Unit area (size) and Total area covered

7. Cost per unit

8. Post technological support

9. Capacity building

10. Rate of adaptation

11. Type of crop (variety) and crop diversification

12. Helped in seasonal extension/ climate resilient

13. Source of Irrigation and system and savings in the water use

14. Energy efficiency

15. Fertilizer, insecticide and pesticide use
16. Number of beneficiaries
17. Increase in the productivity/ yield
18. Increased income/ profitability
19. Market access, better supply chain
20. Increased employment opportunity
21. Meeting the State, national policy/ schemes
22. Any suggestions you want to make

Support to Home Stay

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and saplings (Rs)
2. Source of funding and your contribution if any
3. Selection of the beneficiaries (criteria)
4. Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
5. Training program, skill development
6. Kinds of support –
7. Local business opportunity
8. Income generation
9. Employment generation/ level of community involvement
10 Community empowerment and social cohesion
11. Any significant cultural exchange
12. Tourist satisfaction
13. Banding, collaboration
14. Meeting with the policy
15. Any suggestions you wish to make

Vehicle for Veg Marketing

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and saplings (Rs)

2. Source of funding and your contribution if any

3. Selection of the beneficiaries (criteria)

4. Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
5. Vehicle technology and fuel efficiency
6. Reduced time and better market access/ larger market
7. Reduction in the cost
8. Better income generation
9. Employment generation
10. Asset creation
11. Meeting Any government policies
12. Any suggestions you wish to make

Digital Learning Center & library

Name of the informer:

Village Name

Household size: Adult Children Landholding

Primary occupation Annual family income

No. of livestock: Cow Buffalo Goat/Sheep Poultry

1. Assistance received Cost and saplings (Rs)

2. Source of funding and your contribution if any

3. Selection of the beneficiaries (criteria)

4. Social inclusion: BPL/ SU-ST/Minority/Widow/ Landless/ Unemployed/ others
5. Any income generation: Number of hours working: Income (rs)

5. Objective/ Aim of the project

6. Number of collection and technology

7. Knowledge imparting mechanism

8. Number of visitors/ beneficiaries

9. Average age: Education:

10. Impact on education/ awareness

11: Impact on career advancement

12: Any suggestions you wish to make

SHG: Name and village

1. Name of the SHG and type of SHG (General, women, etc.)
2. Average number of members in each group
3. Model of savings, saving habits; Monthly contribution of the members
4. Individual member's behaviour, financial literacy
5. Credit system and growth of fund, Credit received - number of credit and average value (Rs) of credit
6. Purpose of the credit (burrowing)
7. Pay back (re-payment) system and period of pay-back
8. Average savings available with the SHG for credit
9. Economic activities of the enterprises, business viability
10. Business Skill in the community/ individual
11. Increase in income of the group members, Any assets created and livelihood development
12. Employment generation/ opportunities
13. Market link
14. Any potential risk

Young Girls Group

Name of the Informer:

Villages:

Education details

Basis of selection:

Support:

Impact:

Opinion on the CSR project and Corporate

Suggestions and recommendations for the improvement in the project component

Young Girls Group

Name of the Informer:

Villages:

Education details

Basis of selection:

Support:

Impact:

Opinion on the CSR project and Corporate

Suggestions and recommendations for the improvement in the project component

Education & sports

1. Name of the informer
2. Name of the village
3. Type of Sports Education introduced
4. Average number of students benefitted
5. Level of accessibility to the facility/ education (Equity)
6. Increased physical activity in the school/ village and social cohesion
7. Physical health and fitness impact, Community development, well-being – Obesity, active and overall fitness, and leadership, etc.
8. Influence on the education program (school enrolment/ school attendance/ passing percentage/ aspiration for higher education)
9. Environmentally friendly practice (energy conservation, waste management, etc.)
10. Maintenance of the sports equipment and in-house skill to maintain
11. Career development
12. Any suggestions you wish to make: