Annual Report

(2022 - 2023)

People's Science Institute

People's Science Institute
ITBP Road, P.O. Kanwali
Dehradun - 248 001
Uttarakhand
Web : www.peoplesscienceinstitute.org
Mail : psiddoon@gmail.com
Phone : +91 135 3500308,09

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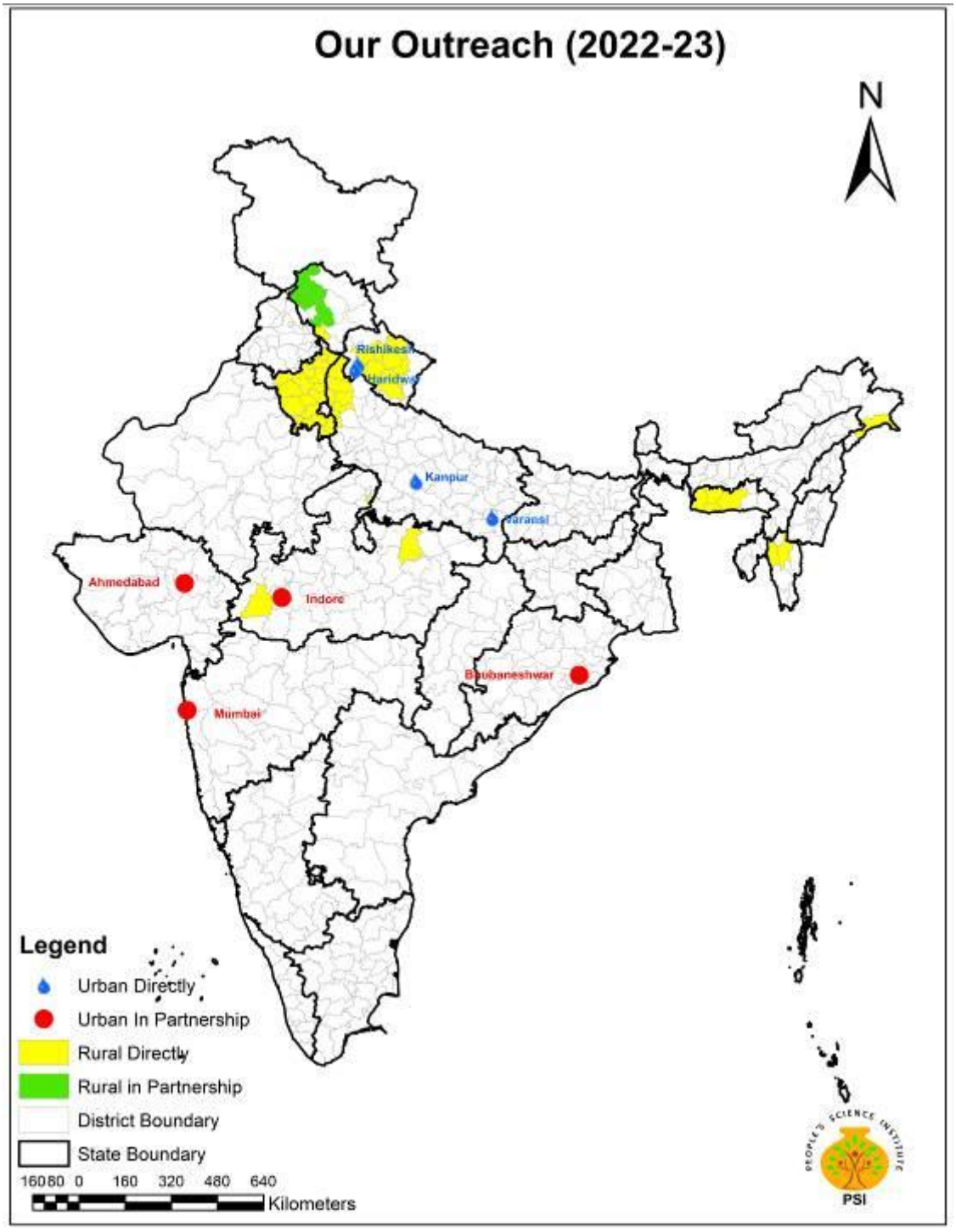


States – 11

Districts - 52

Villages – 1918

Households - ~35,398

Cities/Towns - 9

I. ABOUT PEOPLE'S SCIENCE INSTITUTE

People's Science Institute (PSI) is registered as a society in New Delhi under the Societies Act (1860). **Its stated mission is, "To help eradicate poverty through the empowerment of the poor and the productive, sustainable and equitable use of available human and natural resources."** At PSI, poverty is understood in terms of shortages of human, social, natural, physical, and financial capital in communities.

Operationally it provides technical and managerial support to communities and organizations that work with them, implements development programs, and undertakes public interest research. PSI's activities are spread all over India. Its current geographical focus is on the Himalayan states and the poverty-ridden Bundelkhand region.

PSI's activities are grouped under four units: (i) Natural Resources Management, (ii) Disaster Mitigation and Response, (iii) Environmental Quality Monitoring, and (iv) Innovative Projects. The activities of the first three units are defined by the needs expressed by communities or the organizations working with them. The Innovative Projects Group experiments with critical concepts, processes, and technologies to enable PSI to respond to emerging needs. Each unit implements development projects, undertakes research, and provides training as well as professional support. The Institute's approach to implementing development projects is a participatory one with empowerment of the underprivileged and self-reliance as key objectives.

The Institute has a competent staff of socially conscious engineers, scientists, and social workers to carry out the above tasks. It has its eco-friendly campus building in Dehra Doon. It operates two state-of-the-art laboratories for Geographical Information Systems and Environmental Quality Monitoring. The Institute has a small library with over 3000 books. It subscribes to several professional journals and periodicals. The staff is adequately equipped with personal computers and the necessary applications software. PSI possesses basic office equipment and training aids.

PSI has established a special niche for itself by undertaking projects on a large scale by using a systems approach to scale-up community-centered projects from a village to a district level, innovating social processes, administrative procedures, and technologies. It is also recognized for its professional, knowledge-based approach from problem analysis to formulation of policy guidelines. The number of communities, voluntary organizations (VOs) working with them, research institutions, government agencies, and occasionally donor organizations that seek the Institute's support or collaboration, continues to increase.

In the last 35 years the Institute has become well-known in the voluntary sector for its pioneering work in the fields of community-based natural resources and watershed management for improved livelihoods, promotion of agro ecological practices, geo-hydrology based springshed development, environmental quality monitoring, disaster-safe housing, river conservation and dissemination of appropriate technologies.

This annual report outlines the major activities of 2022-23.

II. YEAR 2022-23: AN OVERVIEW

In the year 22-23, PSI largely worked in three thematic areas i.e. (i) water, food and livelihoods security; (ii) participatory springshed and wetlands management; and (iii) air and water quality studies. Apart from the above it extended support to different government programs on the issue of participatory ground water management.

The water, food and livelihoods security programs of PSI, covered the Western Himalayan and Bundelkhand regions of India, covering a total of 7200 families from 96 villages from 5 districts of three states (Himachal Pradesh, Madhya Pradesh and Uttarakhand. These projects were supported by LIC -HFL - CSR, NABARD Uttarakhand, Ajim Premji Philanthropic Foundation (APPF) and Srijan(Under MP Natural Farming Coalition) .

In the Western Himalayan region (Himachal Pradesh and Uttarakhand) the focus was on natural resource management and promotion of sustainable livelihood activities like treatment of drying springs, increasing access to irrigation facilities, and enhancing crop productivity through agro-ecological practices. Farm based livelihood activities mainly included crop diversification, vegetables and spices cultivation, fruit and fodder plantation, mushroom cultivation, bee keeping, and poultry. Off farm livelihood activities included community based tourism, and sewing and knitting, especially as women driven enterprises. Infrastructure for collection, processing and marketing was developed in three clusters covering 30 mountain villages. Community based institutions like SHGs, watershed committees and farmers' cooperatives were formed and/or strengthened. The beneficiary households got an additional average annual income of about Rs. 7,000 in the first year of program implementation itself.

In the Bundelkhand region, the focus was on demonstrating Climate Smart Drought Mitigation through improvement of food, nutrition and livelihood security, in a socially-just manner. This included provision of life-saving irrigation through farm ponds; on-farm innovative agronomic practices like SCI, natural farming, NPM, kitchen garden, vegetable cultivation; establishment of Technology Resource Centres, millet processing units and strengthening of institutional mechanism to sustain the efforts. The program covered 4020 households of 35 villages of Panna district of Madhya Pradesh. 98 ha was provided protective irrigation, with increase in crop productivity ranging from 40 to 90 per cent. 96 Farmers Interest Groups have been formed and strengthened. The reported increase in annual household income from different farm based interventions ranged from Rs. 10,000 to Rs. 20,000, in the third year of program implementation.

Under Participatory Springshed Management, the year saw the revival of 77 springs in the mountain states of Himachal Pradesh, Mizoram, and Uttarakhand under different projects supported by the Amity Institute of Global Warming and Ecological Studies (AIGWES), Frank Water (UK), Wheel Global Foundation, IWRD Mizoram and ICIMOD in partnership with ACWADAM and IIT Roorkee. 65 Water User Groups (WUGs) were formed and/or strengthened over the year. About 19,182 households of 72 villages have benefited from these

community-driven springshed management programs. The benefits include access to drinking water (even during the lean season), improved spring water quality, additional biomass, and reduced soil erosion. In addition to the above, PSI undertook capacity building programs for government officials of Himachal Pradesh (Forest Department), Manipur (Rural evelopment Department), Mizoram (Irrigation and Water Resources Department), and Uttarakhand (Watershed Management Directorate)

Integrated Wetlands Management Plans were prepared for Renuka Ji (Sirmour) and Pong Ramsar (Kangra) sites of Himachal Pradesh through intensive stakeholders' consultations (including local panchayats and concerned government departments), in partnership with CEDAR, Dehradun through the financial support of GiZ India. These plans recommend protocols for addressing identified challenges related to siltation, water quality, sewage treatment, garbage disposal, avian and fish population, and local livelihoods. These plans are likely to benefit 5,000 households of 28 villages in the neighborhood of the two wetlands.

Under air and water quality studies, the research initiatives encompassed various ecological and health-related projects, including evaluating the vulnerability of the Ganga river, implementing sustainable agricultural practices in the Hindon sub-basin, monitoring Dulhaniya river's water quality, studying air pollution in Ahmedabad, Bhubaneswar, Indore, and Mumbai, and addressing fluorosis in Dhar district, Madhya Pradesh. The river studies revealed significant pollution and highlighted the need for community involvement, sustainable agriculture, pollution control, localized solutions, and scientific research to preserve river ecosystems. In target cities, research on air pollution emphasized local priorities, stressing the importance of monitoring, stakeholder interaction, and community engagement.

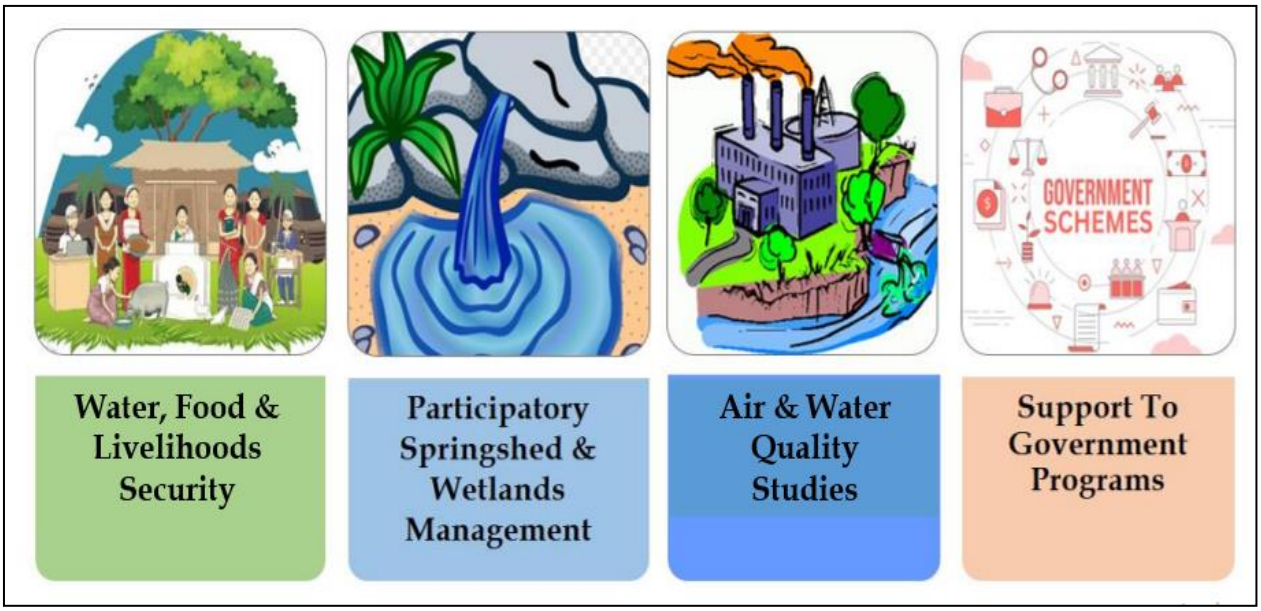
The work in Dhar made notable strides, benefiting marginalized communities afflicted by fluorosis and water scarcity. Achievements included household water supply systems, sanitation improvements, and groundwater recharge initiatives. Noteworthy outcomes involved reduced urinary fluoride levels, full compliance with WASH indicators, environmental conservation, and women's empowerment.

In the year 2022-23, PSI extended support to various government programs for participatory groundwater management. Government agencies such as the Irrigation and Water Resource Department of Mizoram, Meghalaya Basin Management Agency of Meghalaya, and 6 Forest Divisions of Uttarakhand and Himachal Pradesh have implemented projects for springshed management with the support of PSI, benefitting over 2028 households. PSI assisted these departments in disseminating knowledge about springs to the concerned communities and government officials, building water user groups, preparing Detailed Technical Reports (DTR) for springshed management, installing data monitoring systems, and implementing engineering and vegetative measures in the spring recharge areas.

PSI in partnership with ACWADAM, Pune extended project management and technical and facilitation services to the Irrigation and Water Resource Department of Haryana, in implementing the Atal Bhujal Yojana, in 1669 villages of 13 districts of Haryana. Some of the

major achievements have been in installing 1000 piezometers, preparing 32 block-level hydrogeological reports, facilitating and verifying 1200 Village Water Security Plans, preparing IEC plans and SOPs at the district-level, and training 110 persons from the community, government departments, and CSOs.

PSI helped in the management of the shallow aquifer in Gwalior city under Atal Mission for Rejuvenation and Urban Transformation (AMRUT 2.0) implemented by the Ministry of Housing and Urban Affairs, benefitting 1200 households. It conducted comprehensive surveys to assess hydrogeological aspects and engineering feasibility, created a groundwater level map of Gwalior city, organized workshops for information dissemination, prepared a detailed technical report, established monitoring systems at selected sites, and at the same time ensured alignment of these activities with civic initiatives.



The year thus saw PSI mainly contributing to Sustainable Development Goals (SDGs) 1 (End Poverty), 2 (End Hunger), SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), 6 (Water and Sanitation), 11 (Sustainable Cities and Communities), 12 (Responsible Consumption and Production), 13 (Combat Climate Change and its Impacts), 14 (Conserve and Sustainably Use Aquatic Resources for Sustainable Development), and 17 (Partnerships for the Goals). In the coming year, the Institute plans to expand its activities, focusing on addressing climate change, livelihood security and sustainable urbanization.

In the end, we would like to extend our gratitude to our well-wishers, knowledge and technical partners, grass-root level organizations, and communities who have been with us during this challenging yet exciting journey. We are grateful for your support and trust in us because this has stimulated our mission to work towards nation-building based on the principles of productivity, sustainability, equity, self-reliance, diversity and inclusivity while promoting people's science in all that we do.

III. PROGRAMME BRIEFS

III.a Water, Food and Livelihoods Security

IIIb. Participatory Springshed & Wetlands Management

IIIc. Air & Water Quality Studies

IIId. Support to Government Programs

III.a Water, Food & Livelihoods Security

S. No.	Project Title	Total Project Period	Total Grant Amount (Rs.)	Funding Agency	Project Partners	Geographical Coverage
1	Promoting Farm and off Farm based Micro-enterprise Development for Livelihoods Security in Western Himalayan Landscape under LIC LIFE Program (Livelihood Initiative for Financial Empowerment)	September 2022 to December 2023	1,15,97,750	LIC - HFL - CSR	NA	States: Uttarakhand, Himachal Pradesh Districts: Nainital, Solan No. of Villages: 30 Beneficiaries: 2,000 households
2	Watershed Based Springshed Development in Almora district	September, 2022 to August, 2025	57,43,619	NABARD - RO Dehradun	NA	State: Uttarakhand District: Almora No. of villages: 2 Beneficiaries: 103 households
3	Watershed Based Springshed Development in Bageshwar district	July 2022 to June, 2025	57,69,622	NABARD - RO Dehradun	NA	State: Uttarakhand District: Bageshwar No. of villages: 4 Beneficiaries: 597 households
4	Climate Smart Drought Mitigation and Livelihood Enhancement	January, 2020 to September 2023	3,44,10,764	Ajim Premji Philanthropic Foundation (APPF)	NA	State: Madhya Pradesh District: Panna No. of villages: 35 Beneficiaries: 4,000 households
5	Aligning Farming with Nature	February 2022 to March 2023	Rs.26,05,000	Srijan under MP- NF Coalition	MP- NF Coalition	State: Madhya Pradesh District: Panna No. of villages: 20 Beneficiaries: 500 farmers

Promoting Farm and off Farm based Microenterprise Development for Livelihoods Security in Western Himalayan Landscape under LIC LIFE Program

Objectives:

- Development of village-level plans.
- Formation of groups and village-level institutions.
- Capacity building of farmers and institutions.
- Training and demonstrations on organic farming and agro-ecological practices.
- Development of farm and off-farm enterprises through processing and marketing.
- Improvement in the income of vulnerable communities.

Activities:

- Formation and strengthening of village-level institutions such as farmer's interest groups (FIGs) and self-help groups (SHGs) in all project villages for planning and implementation of on-farm and off-farm livelihood activities.
- Development of on-farm micro-enterprises such as beekeeping, poultry, goat farming, and mushroom cultivation.
- Setting up off-farm enterprises such as sewing and knitting to empower women.

Farm Demonstration Dhari, Nainital district, Ukd

- Promotion of community-based tourism through homestays in Dhari.
- Convergence proposals for ongoing government irrigation schemes
- Training, farm demonstrations, and exposure visits for farmers and institutions on agro-ecological practices.
- Cluster-level workshops and collaboration for knowledge dissemination and scaling up the efforts.

Outcomes:

Empowering Farmer Communities: A total of 31 Farmer Interest Groups (FIGs) and 32 Self-Help Groups (SHGs) were established and strengthened. FIGs received specialized training in crop-specific agro-ecological practices. SHGs were trained in both farm and off-farm enterprises, fostering a diverse skill set within the community.

FPO Development and Strengthening: The formation of the Farmer Producer Organization (FPO) named Agar Ghati Kishan Sahkarita (AGKS) was a significant milestone. The FPO underwent comprehensive capacity-building programs focused on production enhancement, product designing, and effective marketing strategies, ensuring their sustainability and growth.

Knowledge Dissemination and Skill Enhancement: A total of 1,000 farmers were trained in various agro-ecological practices, furthering their understanding of sustainable farming methods. Additionally, 500 farm demonstrations were created, showcasing best practices in cultivating essential crops such as Wheat, Paddy, Maize, Kidney Beans, Soybeans, and Peas. Bio-input resource centres were established, promoting the adoption of organic and natural farming techniques among the farming community.

Honey production Kandaghat Cluster, Solan district, HP

Diversification of Livelihood: Various farm-based enterprises, including beekeeping, poultry, and goatery, were developed, providing farmers with alternative sources of income. Additionally, off-farm livelihood activities like homestays flourished. Women entrepreneurs were empowered through initiatives such as sewing and knitting enterprises, fostering economic independence and skill development among them.

Infrastructure and Market Development: The project led to the establishment of collection centres, processing units, and market outlets, streamlining the supply chain and ensuring fair market access for the farmers. This development created a conducive environment for local produce to reach a wider consumer base.

Processing unit: Dhari Cluster, Nainital district, Ukd

Impact on Households: A total of 1,700 households benefitted from the diverse farm and off-farm livelihood activities, significantly improving their economic stability and overall well-being.

Economic Gains: The collective efforts resulted in a substantial income of Rs. 18,52,200 generated from various farm and off-farm products. This financial boost not only improved the living standards of the farming communities but also contributed to the economic development of the region.

Watershed Based Springshed Development in Almora and Bageshwar Districts

Objectives

- Revival of drying springs for drinking water and minor irrigation purposes.
- Improvement of soil fertility through soil and water conservation measures.
- Create alternative livelihood opportunities for women and vulnerable communities.
- Strengthening of the village-level institutions and watershed-level community-based organizations.

Activities:

- Construction of trenches in Khirganga and Kamyaraula springshed projects for the treatment of drying springs.


Construction of trenches and gabions in Kamyaraula project, Almora district, Uttarakhand

- Constructed/repaired irrigation guhls/canals for developing additional irrigation facilities and improving crop productivity.
- Drinking water pipeline scheme in the Kamyaraula project to provide safe drinking water to the local community.
- Planted grass and fruit plants. Farm demonstrations of System of Crop Intensification, vegetable, spice, and pulse cultivation.

Meeting with members of watershed Committee Kamyaraula project

- Organized meetings and exposure visits on natural farming for the village watershed committee, Mahila Mangal Dals, and Self-Help Groups. Awareness camps were organized on Women's Day and the Harela festival.
- Monitoring visits were made by DDM NABARD Almora and the team from RO Dehradun.

Outcomes:

Springshed Conservation: Successfully treated 10 springs, 6 in Khirganga and 4 in Kamyaraula, through the construction of 1,160 trenches, ensuring sustainable water resources for the community.

Enhanced Irrigation Potential: Constructed and repaired 600 meters of irrigation guhls/canal, directly benefiting approximately 75 families and irrigating 6 hectares of land.

Water Security: Implemented an 880-meter drinking water pipeline scheme and storage tank, providing 18 households with a reliable water supply.

Construction and repair of Irrigation Guhl in Kamyaraula project

Biodiversity and Biomass Production: Planted 17,000 grass slips to promote fodder production and established 1,364 fruit plants, contributing to the growth of the local fruit industry and supporting agricultural diversity.

Construction of storage tank for irrigation in Khirganga project, Kapkot, Bageshwar

Climate Smart Drought Mitigation and Livelihood Enhancement

Objectives

To improve food, nutrition, and livelihood security, in a socially just manner by promoting:

- Life-saving irrigation for rainfed crops during dry spells.
- On-farm innovative agronomic practices like SCI, kitchen garden, and vegetable cultivation.
- Off-farm activities.
- Institutional mechanism to sustain the efforts.

Activities:

Farm Pond, Panna district, MP

- Constructed farm ponds to provide crucial life-saving irrigation. Earthen Check Dams (ECDs) constructed through convergence.
- Promoted goat rearing as a viable off-farm livelihood activity. Organized comprehensive training sessions covering aspects like feed, health, and shelter. Pashu Sakhis were trained at the Goat Trust in Lucknow, ensuring expertise within the community. Established night shelters and organized vaccination campaigns with the support of the animal husbandry department.

TRC, Birampura village, Panna district, MP

- Established Community-based Technology Resource Centers (TRCs), Bio-input Resource Centers (BRC), and seed banks providing farmers with essential inputs such as seed drills, weeders, power sprayers, single seed dribblers, see ds, organic fertilizers, and Integrated Pest Management (IPM) tools fostering the adoption of organic farming practices.
- Developed Village Level Institutions (VLIs) including Farmers' Interest Groups (FIGs), ensuring self-reliant development and promoting good governance practices within the community.
- Conducted Aam Sabha (village and hamlet unit) meetings in all villages, encouraging active community participation and inclusive decision-making processes.

Outputs:

- **Enhanced Irrigation Access:** 98 ha provided protective irrigation through construction of 155 farm ponds. 670 households additionally benefited through check dams built through convergence. Crop productivity enhanced by 39% to 87 %.
- **Diverse Irrigation Solutions:** Irrigation security to 1,061 households, including micro-irrigation and solar-based irrigation systems, ensuring sustainable water access.
- **Sustainable Agriculture:** Improved agronomic practices (SCI, Natural farming, and Non-Pesticide Management) on 692 hectares of land, benefiting 2,060 farmers.
- **Nutrition Security:** 2,914 households established kitchen gardens growing 22 varieties of vegetables and fruit plants. 46% families produced surplus (generating income ~ Rs. 1000/year)
- **Off-Farm Livelihoods:** 432 families benefited through goat-rearing initiatives (including night shelters and vaccination campaigns).

SRI Line to Line Transplanting

- **Technology Access:** Established Technology Resource Centres (TRCs) and Bio-input Resource Centre (BRCs) provided essential farming tools and knowledge to the local communities in 34 villages.
- **Preserving Local Biodiversity:** Established 34 seed banks containing local seeds of major crops and vegetables, promoting biodiversity and preserving indigenous agricultural heritage.
- **Strong Village Institutions:** 108 Farmers' Interest Groups and 5 Farmers Field Schools, promoting community engagement and knowledge exchange among farmers.
- **Convergence for Sustainable Development:** Convergence support to 714 households, allocating Rs. 395.83 lakhs for watershed, irrigation, and land development activities, ensuring holistic and sustainable development in the region.

Village nursery, district Panna district, MP

Aligning Farming with Nature

Objectives:

- To scale up natural farming practices among farmers through a transition towards more locally resilient and adaptive agro ecology-based farming.
- To establish village-level resource centers.
- To enhance the skills of local resources capable of participating in spreading awareness about natural farming.
- To recognize and honor champion farmers by sharing their stories.

Activities:

- Implemented integrated natural farming activities, promoting organic farming methods like composting (Bhu Nadep), liquid organic manure (jeevamrit, ghan jeevamrit), mulching, bio-fencing, and Non-Pesticide Management (NPM) in collaboration with selected farmers.

Farmer using single dribbler for line sowing of maize crop

- Selected crops such as Maize, Pigeon pea, Paddy, and Kodo were prioritized for sustainable agricultural practices.
- Strengthened the Bio-input Resource Centre (BRC) for bio inputs and farm tools.
- Conducted capacity-building programs for Farmers' Interest Groups (FIGs).

Bio Input Resource Center (BRC), Birampura village

- Established Crop Diversify Blocks (CDB) and small-scale post-harvesting and processing units specifically for millets.

Outputs:

Sustainable Farming Adoption: 576 farmers embraced sustainable farming practices through the Natural Farming and System of Crop Intensification (SCI) model, covering a total area of 411 acres.

Promotion of Kitchen Gardens: 468 kitchen gardens established using natural farming principles, encouraging households to grow fresh, organic produce.

Millet Processing Unit: A small-scale kodo millet dehusking unit established in Birampura village (part of the Raipura cluster), fostering local millet processing and supporting the region's agricultural economy.

Composting in maize crop

Layout of a Kitchen garden

Bio-input Resource Centers (BRC): 3 Bio-input Resource Centers (BRC) set up along with a cow urine collection center, promoting the use of organic inputs and sustainable farming techniques.

Enhanced Irrigation Access: Irrigation facilities for 14 farmers through government convergence, leveraging Rs. 2,75,772 to ensure a reliable water supply for agricultural activities.

IIIb. Participatory Springs & Wetlands Management

S. No.	Project Title	Total Project Period	Total Grant Amount (Rs.)	Funding Agency	Project Partners	Geographical Coverage
1	Study of springs and sprinhsheds, in Pauri Garhwal and Tehri Garhwal districts of Uttarakhand	October, 2020 to December, 2022	55,76,111	Amity Institute of Global Warming and Ecological Studies (AIGWES)	NA	State: Uttarakhand Districts: Tehri Garhwal and Pauri Garhwal No. of villages: 21 Beneficiaries: 620 Households
2	Development and Implementation of Science- Based Spring shed Management in Indian Himalayan Region	April 2021 to March 2023	29,42,577	Swiss Agency for Development and Cooperation and ICIMOD	CORD, Forest Department Dharam-shala; ACWADAM, IIT-R	States: Uttarakhand and Himachal Pradesh Districts: Tehri Garhwal, Pauri Garhwal, Kangra and Chamba No. of villages: 8 Beneficiaries: 462 Households
3	Community-based Spring Rejuvenation in Uttarakhand	January 2022 to December 2022	12,80,000	Frank Water, UK	NA	State: Uttarakhand District: Chamoli No. of villages: 9 Beneficiaries: 248 Households
4	Pilot Program for Water Security through Integrated Water Management, based on Scientific Data and Evidence based Decision Support System in Himachal Pradesh	May 2021 to April 2024	28,00,000	Wheel Global Foundation	RTDC, MVS, CORD, ACWA-DAM , IIT-R	State: Himachal Pradesh Districts: Mandi, Kangra, Bilaspur, Solan No. of villages: 32 Beneficiaries: 2843Households
5	Springshed Development in Chamoli District, Uttarakhand	March 2022 to December 2022	20,00,000	CMA-CGM (CSR)	NA	State: Uttarakhand District: Chamoli Number of villages: 8 Number of Beneficiaries: 380 Households

S. No.	Project Title	Total Project Period	Total Grant Amount (Rs.)	Funding Agency	Project Partners	Geographical Coverage
6	Hydrogeological mapping for identification of recharge area of springs for four springsheds located in selected villages of Mengpui Basin Mizoram.	March 2023 to April 2023	2,48,236	IIT- Roorkee	IWRD, Miroram	State: Mizoram District: Aizawl No. of villages: 2 Beneficiaries: 52 Households
7	Stakeholder Consultations for Integrated Management Planning of Renuka and Pong Ramsar Sites in Himachal Pradesh	December 2021 to September 2022	43,82,520	Deutsche Gesellschaft für Internationale Zusammena-rbeit (GiZ)	CEDAR, Dehra-dun	State: Uttarakhand and Himachal Pradesh District: Sirmour and Kangra No. of villages: 28 Beneficiaries: 5000 Households

Study of Springs and Spring sheds in Pauri Garhwal and Tehri Garhwal districts of Uttarakhand

Objectives:

- Study 6 identified watersheds - 3 each in Tehri and Pauri Garhwal districts of Uttarakhand.
- Identify and geo-tag 120 or more springs (20 springs in each) on the basis of maximum dependency and/or minimum discharge.
- Select 30 critical springs (5 springs in each), identify their micro-spring sheds, and implement treatment measures (engineering and vegetative measures).

Activities:

- Conducted daily rainfall and weekly discharge monitoring for 30 identified critical springs across 6 selected watersheds.
- Trained 6 local para workers for community mobilization and monitoring of spring discharge and water quality.
- Implementation of Recharge Measures.
- Successfully completed engineering and vegetative measures for 20 critical springs in Bareth (5), Malan (5), Moldhar (3), Kotigad (3), and Ghurdauri (4) watersheds, involving the excavation of 3,454 trenches in spring recharge areas.

Implementation work in the recharge area of spring

- Conducted water quality testing during both summer and winter seasons for 30 critical springs.
- Mobilized and built the capacity of 13 water user groups (WUGs), comprising 140 female and 17 male members from the concerned villages.
- Completed detailed geological mapping and fracture identification for 6 watersheds.
- Conducted soil infiltration rate tests and soil porosity studies for 6 watersheds.
- Organized two community-level

Community workshop- Pauri Garhwal

workshops in Chamba (Tehri-Garhwal) with 31 participants (7 males and 24 females) and Gumkhal (Pauri-Garhwal) with 31 participants (12 males and 19 females) to foster community involvement and knowledge exchange.

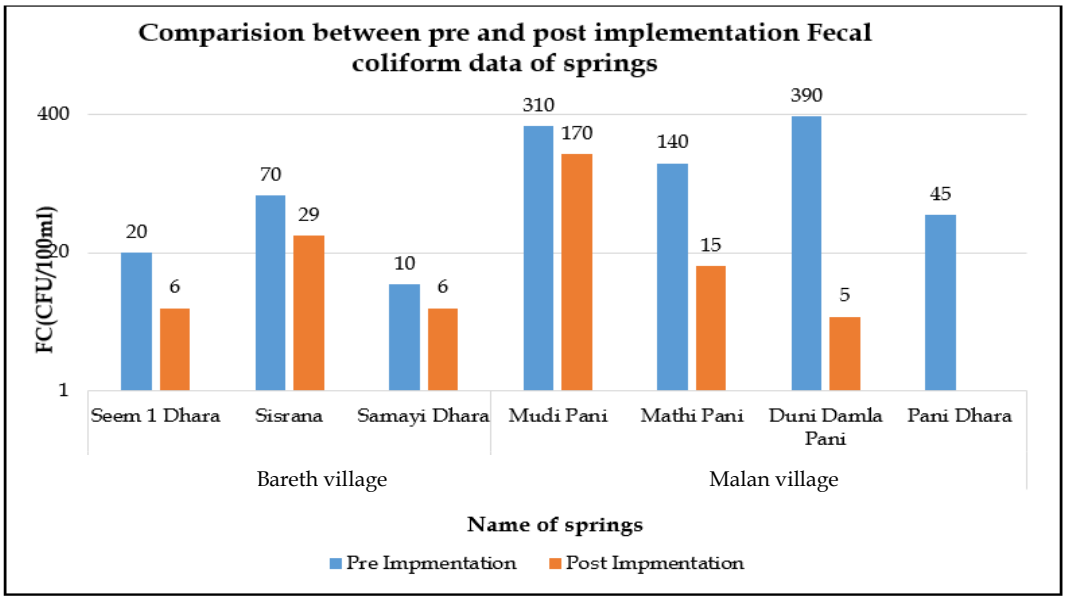
Key Findings and Outcomes:

Watershed Lithology and Fracture Analysis: The lithology of the six watersheds predominantly comprises meta-sedimentary rocks of the lesser Himalayas, including philite, slate, quartzite, and sandstone. These rocks exhibit varying dips mainly in NE, SE, and SW directions, with dipping angles ranging from 18 to 35 degrees. Four sets of fractures were observed, dipping in NE, SE, SW, and NW directions, ranging from 34 to near-vertical orientations.

Nature of Springs and Groundwater Movement: Springs in these watersheds are primarily depression and fracture springs associated with old landslides, weathered zones, and fractures present in the rock. These fractures and joints serve as conduits for groundwater movement.

Increased Discharge in Implemented Springs: 75 per cent of the 20 treated springs exhibited a significant increase in discharge, ranging from 1 to 2 times the previous levels.

Improved Water Quality: After implementation, 80 per cent of the springs demonstrated improved water quality, marked by a reduction in faecal coliform levels.



Community Engagement and Initiative: During the community workshops, local residents expressed a strong commitment to continue the work and pledged the involvement of the Gram Panchayat in ongoing spring-reviving activities. There was a substantial community contribution in spring recharge activities.

Development and Implementation of Science-Based Springshed Management in Indian Himalayan Region

Objectives:

- To develop and advance a scientific and multidisciplinary approach for springshed management.
- To address the vulnerabilities of women and marginalized groups.
- To improve overall water security in the IHR.
- To contribute to developing and implementing spring shed management in the IHR.

Activities:

- Established a fortnightly monitoring system for both daily rainfall and spring discharge to assess seasonal variations.
- Trained seven Community Resource Persons (CRPs), including 2 men and 1 woman in Uttarakhand, and 2 men and 2 women in Himachal Pradesh, enhancing local expertise in water resource management.
- Established and bolstered Water User Groups in Moldhar watershed (Tehri Garhwal, Uttarakhand), Ghurdauri watershed (Pauri Garhwal, Uttarakhand), Bonderi watershed (Chamba, Himachal Pradesh), and Matiyal watershed (Kangra, Himachal Pradesh), forming a total of 8 WUGs.
- Successfully completed implementation activities for 14 springs in Himachal Pradesh and Uttarakhand, involving the excavation of 869 trenches and 735 toe trenches in spring recharge areas.

Implementation of recharge activities in Moldhar Watershed

- Conducted comprehensive water quality testing in pilot sites (Moldhar and Bonderi) on a seasonal basis (three times a year) to check the portability of the water sources.
- Organized the first round of capacity building and training workshops on spring shed management under the Pradhan Mantri Krishi Sinchayi Yojna in Almora, Pithoragarh, and Pauri Garhwal districts of Uttarakhand. Engaged 63 participants, including 13 females and 50 males. Additionally, prepared three Spring Shed Development Plans (SDPs) for the Uttarakhand Watershed Management Directorate under the PMKSY program.

Outcomes:

Community Engagement and Positive Participation: Organizing an exposure visit to Kalsi facilitated positive community participation in planning and implementing treatment measures for Moldhar village. The treated spring significantly benefited the villagers.

Contribution to Decision Support System (DSS) Development: Provided essential inputs to ICIMOD's team for the development of a comprehensive web portal for the Decision Support System, encompassing basic to technical data for three sites: Dashmeri and Moldhar in Uttarakhand and Bonderi in Himachal Pradesh.

Strengthening Collaborative Learning: Facilitated co-learning visits in Uttarakhand (17 participants) and Himachal Pradesh (22 participants), fostering dialogue between diverse government departments and NGOs. These interactions enhanced engagement in action research sites in both states.

Write Workshops for CRPs: Supported ICIMOD in organizing a Write Workshop in Dehradun for Community Resource Persons (CRPs) working on Springshed Management (SSM). Seven male and eight female participants from Uttarakhand and Himachal Pradesh contributed to this workshop, resulting in the publication of seven successful stories.

Case stories of Paraworkers

Enhancing Interdepartmental Collaboration: Successful convergence with the Forest Department facilitated synergy between PSI and the department, aiding future SSM activities. PSI has initiated the preparation of Detailed Technical Reports (DTRs) for the Forest Department of Uttarakhand for springshed management. Similar demands have also been received from the Panchayati Raj and Rural Development Department of Himachal Pradesh.

Positive Impact on Water Quality: Implementation activities led to a notable improvement in water quality, evidenced by a reduction in fecal coliform levels in the springs.

Regional Expansion and Demand for Manuals: Prepared two spring shed development plans for Manipur state, extending the reach of the initiative. Following the training of government officials under PMKSY, the Watershed Management Directorate (WMD) expressed a demand for a manual on Springshed Management (SSM).

Training of Government Officials under PMKSY

Community-based Spring Rejuvenation in Uttarakhand

Objective:

Community-based spring revival in Chamoli district, Uttarakhand.

Activities:

- Recce visits conducted in 18 villages of Tharali, Narayanbagar and Joshimath blocks, and inventory made for 38 springs in these villages.
- 10 critical springs were selected (4 in Joshimath, 3 in Tharali, and 3 in Narayanbagar) and revived based on Hydro-geological surveys, PRAs and need assessment.
- Formation and capacity building of village level institutions.

Water User Group Meeting in Bharki Village, Joshimath

Outcomes:

- Increased drinking water availability in all the villages.
- Trained cadre of para workers for operation and maintenance.
- Protocols developed for the protection of spring recharge areas

Plantation work at Haskoti village

After successfully completing the work in the Chamoli district, 14 critical springs were identified in Almora district for 2023.

Trenches excavation work in Bajwad village

Pilot Program for Water Security through Integrated Water Management, based on Scientific Data and Evidence-based Decision Support System in Himachal Pradesh

Objectives:

- To regenerate and protect a total of 55 springs (including 10 springs of JJM) in four districts of Himachal Pradesh for promoting water security on a sustainable basis.
- Stress on demand management and build self-reliance through strengthening community level institutions.
- To increase fodder availability, improve irrigation, reduce soil erosion and sanitary protocols to protect springs.
- To reduce mountain women's drudgery to fetch water, sustain people's livelihoods and help in reviving a dying culture of managing the local water bodies.
- Convergence with flagship programs.

Activities:

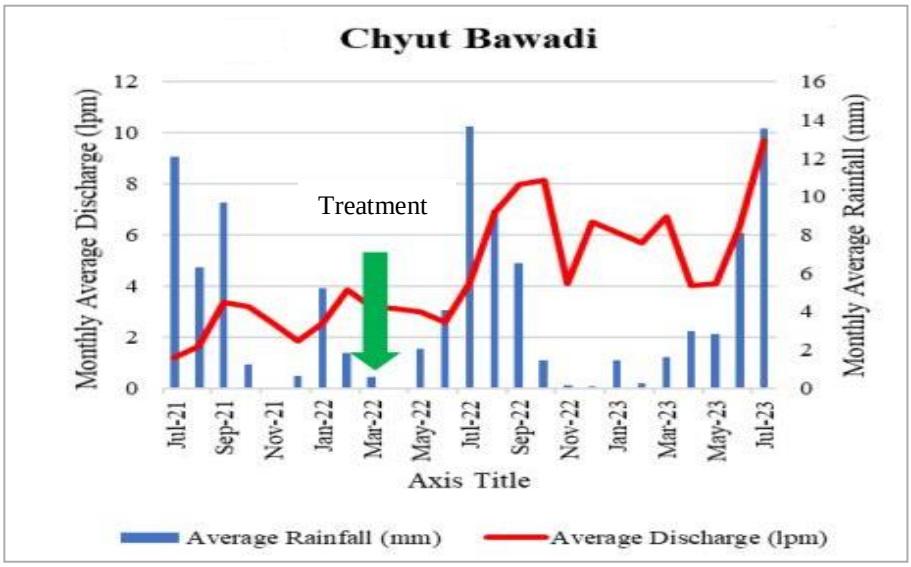
- Engage with relevant government departments to initiate engineering and vegetative measures in recharge areas. Share technical information for comprehensive planning.
- Conduct engineering surveys in collaboration with the Rural Development department and Forest department to identify the gaps in the existing measures for improvement.
- Organize refresher training sessions to enhance the knowledge and skills of personnel involved in engineering structures and water quality management of springs.
- Implement a regular monitoring system by training the Water User Groups for fortnightly measurements of spring discharge and water quality.
- Data compilation and analysis for 45 springs for informed decision-making and future planning. Sharing of information through the Water Governance Foundation (WGF) portal.

Plantation near Ikku Khad by WUG under Rural Department

Trenches in recharge area of Kulha Malun spring, Trishun village under Rural Department

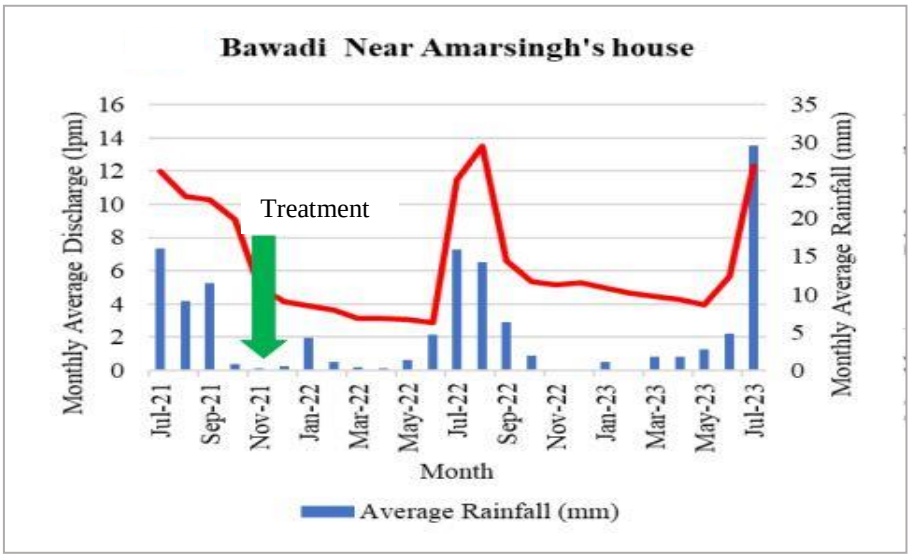
Outcomes:

Discharge Improvement: 29 springs received partial treatment by the Rural Development and Forest Departments. Among these, 66 per cent of the treated springs exhibited an increasing discharge trend, indicating positive outcomes in water availability.



Hydrograph of Chyut Bawdi (Pre & Post Implementation Comparison)

Interventions Beyond Springs: Beyond spring recharge, the project addressed grey water management, storage, and distribution. These efforts directly or indirectly benefited over 300 households, enhancing water access and hygiene standards.



Hydrograph of Bawdi Near Amar Singh House (Pre & Post Implementation Comparison)

Community Initiatives and Sustainable Practices: Water User Groups (WUGs) in Kangra district initiated their plantation programs in critical spring recharge areas, promoting sustainable environmental practices. Existing Self-Help Groups (SHGs) and Farmer Interest Groups (FIGs) were revitalized, fostering community-driven initiatives and knowledge sharing.

Enhanced Digital Transparency: Additional support was provided for the formation of the Water Governance Foundation (WGF) portal, enhancing digital transparency and accessibility. Project activities and relevant documents were shared on the portal, ensuring stakeholders have comprehensive access to project-related information.

Springshed Development in Chamoli District, Uttarakhand

Objectives:

- Regeneration of 10 springs through engineering, vegetative, and social measures.
- Formation and capacity building of WUGs.
- Development of protocols for the operation and maintenance of springs.
- Development of para hydro-geologist from communities for monitoring of spring discharge and water quality.

Activities:

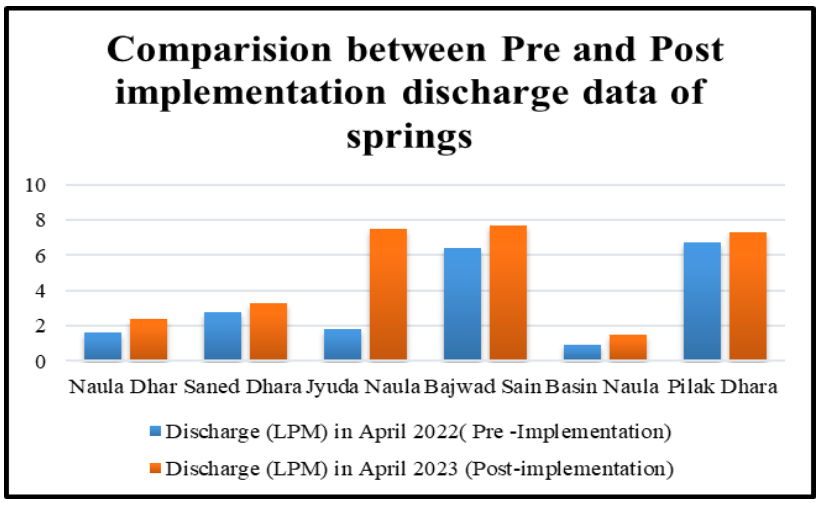
- An inventory of 26 springs has been prepared, and 10 critical springs were selected across 8 villages.
- Monitoring daily rainfall and discharge (on a weekly basis) for 10 critical springs.
- Training 1 local para worker on discharge, rainfall, water quality measurements, and community mobilization.

Community meeting at Saned village

- Community mobilization and capacity building for 8 water user groups.
- Implementation was completed for 10 critical springs, involving the excavation of a total of 1,978 trenches, 2,100 recharge pits, and 260 toe trenches in the recharge area of springs.

Achievements:

Community Contribution: The community actively participated by contributing Rs. 28,470 (25%) out of the total cost of Rs. 5,69,400 for implementation.



Increased Spring Discharge: 50 percent increase in spring discharge during the lean season, showcasing the project's effectiveness in sustainable water resource management

Future Initiatives: Encouraged by the positive outcomes, the funding agency (CMA-CGM) has expressed willingness to continue their support.

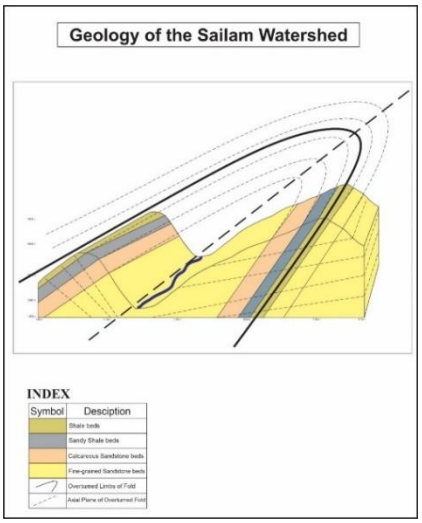
Springshed and Micro-Watershed development in Mizoram, IIT-R

Objectives:

- Hydrogeological mapping of springs (Recharge area delineation).
- Identification and intervention plan for recharge areas.
- Implementation of recharge activities in springs recharge areas.
- Household survey in spring-dependent villages for water security planning.
- Hydrological survey and watershed development plan for two micro-watersheds.

Activities:

- Conducted hydrogeological and engineering feasibility surveys for 4 springs and 2 micro watersheds of Lamchhip and Sailam villages of Aibawk block.
- Developed water security plans and springshed development plans for 4 springs.
- Implemented recharge activities in the four springs using a participatory approach.
- Prepared Watershed Development Plans for two micro-watersheds in Lamchhip Village of Aizawl District.

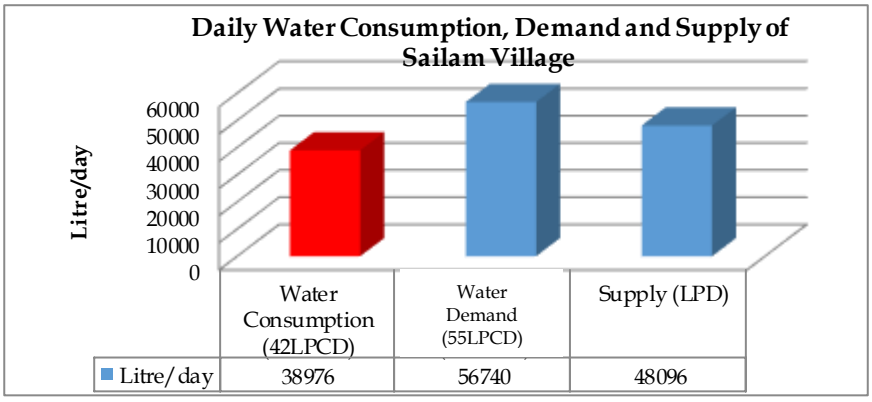


Outputs:

Watershed Mapping: Detailed watershed maps prepared showing drainage, contour, land use and geological features.

Spring Typology Analysis: 2 Depression cum Fracture Springs, and 2 Fracture Springs.

Water Budget Analysis: There is a higher gap in Lamchhip village (1,11,911 LPD) as compared to Sailam village (17,849 LPD) during the summer season.



Watershed Development Plans: Treatment measures (costing Rs. 28.19 Lakhs) such as contour trenches, ponds, brush wood check dams, loose boulder check dams, and gabions have been proposed in 81 ha to plans aimed at preventing soil erosion.

Stakeholder Consultations for Integrated Management Planning of Renuka and Pong Ramsar Sites in Himachal Pradesh

Objectives

1. To conduct stakeholder consultations to support integrated management planning for the Renuka and Pong Ramsar sites.
2. To facilitate intensive stakeholders' dialogues to discuss various aspects of wetland management.
3. To establish a common and shared vision for the sustainable management of the concerned wetlands.

Activities

- Organized consultation meetings with stakeholders at the Panchayat level, Fishery Cooperative and fishermen, State Pollution Control Board, IPH department, Tourism department, social activists, private guesthouses, and regional water sports centers to discuss emerging challenges for sustainable management of Renuka and Pong Wetlands.

Panchayat level stakeholder meeting in Renuka

- Organized multi-stakeholder workshops for the Integrated Management of Renuka and Pong Ramsar sites.

Stakeholders meeting with Fisher community in Pong

Recommendations:

I. Renuka Lake:

Siltation Management:

- Need for baseline data on siltation rates, especially pre and post-monsoon levels.
- Monitoring of Public Works Department construction work to prevent silt influx into the lake.
- Comprehensive plan for the systematic removal of silt from the lake.

Sanctuary Catchment Area and Water Studies:

- Need of dense ground vegetation.

- In-depth studies on streams within the catchment area and preparation of effective treatment plans.

Water Management and Macrophyte Study:

- Study of water inflow and outflow data to calculate the lake's capacity.
- Identification of useful and harmful macrophytes in the lake water, crucial for ecological balance.

Fish Population and Water Quality:

- Study on Renuka Lake's carrying capacity for fish population, with potential relocation to other lakes if needed.
- Real-time water quality testing, especially Dissolved Oxygen (DO) levels, with a warning system for immediate adaptive measures.

Sewage Treatment and Garbage Disposal:

- Effective sewage treatment, including sewerage lines away from the lake and support from the Renuka Vikas Board.
- Restrictions on commercial activities beyond Parasuram Taal, declaring the area a plastic-friendly zone, and devising plans for plastic and solid waste collection and disposal.

Bathing Ghats, Stakeholders, and Boating:

- Improvements in bathing ghats, emphasizing the need for designated bathing areas and treatment of polluted water after bathing.
- Inclusion of the Rural Development (R.D.) department and Language, Art, and Culture department as stakeholders.
- Fish-friendly boating methods, suggesting the use of pedal boats while being cautious about potential harm to fish due to greasing of pedals.

SWOT Analysis and Convergence:

- Comprehensive SWOT analysis of Renuka Lake, considering both ecological and institutional factors.
- Possibility of district administration allocating up to Rs. 1 crore for lake improvement, suggesting immediate interventions like spring and stream treatments, vegetative measures, and catchment area plantation.

II. Pong Dam

Water Quality Assurance:

Establish water sample collection platforms to facilitate regular water testing, ensuring the availability of safe water resources.

Local Seed Production Enhancement:

Promote in-situ seed raising of native fish in collaboration with the community, ensuring a sustainable supply of large-size fish seeds, with technical support from CIFRI.

Value Addition and Income Generation:

Encourage fish processing and value addition initiatives, supporting income generation opportunities within the community.

Effective Coordination with BBMB:

Maintain regular communication with Bhakhra Beas Management Board (BBMB) for early warnings before water release and necessary permissions for activities.

Promotion of Tourism and Infrastructure Development:

- Support locals in exploring tourism opportunities on private lands, enhancing local livelihoods.
- Improve tourism infrastructure, including additional floating jetties, especially near significant sites like Bathu Ki Ladi temple.

Plastic Ban Enforcement and Carrying Capacity Study:

- Enforce a ban on carrying plastics in the Pong Dam Lake area to preserve the ecosystem.
- Conduct a comprehensive study to estimate the tourism carrying capacity of the wetland ecosystem, ensuring sustainable tourism practices.

Promotion of Sustainable Farming Practices:

Promote organic and natural farming practices, providing training to farmers in districts such as Sirmour, Kangra, Mandi, Kullu, and Hamirpur, covering the majority of the catchment area.

Diversification Initiatives:

Encourage cinnamon farming in private lands around Pong Dam Lake, promoting agricultural diversification.

Wildlife Disease Management Protocol:

Develop Standard Operating Procedures (SOPs) for handling avian disease outbreaks in Protected Areas, ensuring the preservation of wildlife.

Wetland Boundary Demarcation and Committee Formation:

- Demarcate the boundary of Wildlife Sanctuaries (WLS) and Ramsar sites with geo-tagged pillars and reinforce vulnerable points with fencing.
- Facilitate the formation of District Wetland Committees, a process currently underway, to foster inter-departmental convergence at the district level for wetland conservation and sustainable management.

IIIc. Air & Water Quality Studies

S. No.	Project Title	Total Project Period	Total Grant Amount (Rs.)	Funding Agency	Project Partners	Geographical Coverage
1	USAID-India Local Works Program Design Support Services.	January 01, 2022, to September 30, 2022	99,89,215	USAID-India	Deen Bandh Samaj Seva (DBSS) Indore, Habitat and Livelihood welfare Association (HALWA) Mumbai, Rehthan Adhikar Manch Ahmedabad, Odisha Basti Sangharsh Samiti (OBSS)	Cities: Ahmedabad, Bhubaneshwar, Indore, and Mumbai
2	Co-creating Sustainable Agri-Water Use in the Hindon sub-basin –A Multi Scale Participatory Approach	February 2022 to January 2027	99,61,845	Department of Science and Technology (DST) and The Dutch Research Council (NWO)	Netherland Partners: Wageningen University and Research (WUR) and Utrecht University (UU), Indian Partners: IISER-K, ICAR-IIFSR and IIT-R	State: Uttar Pradesh Districts-Saharanpur, Muzaffarnagar, Shamli, Meerut, Baghpat, Ghaziabad and Gautam Budhha Nagar
3	Assessing combined physical and social riverine vulnerability of the Ganges, India	February 2022 to February 2023	5,00,000	University of Central Lancashire of Preston, United Kingdom	NA	States: Uttar Pradesh and Uttarakhand Cities: Rishikesh, Haridwar, Kanpur and Varanasi
4	Community-based fluorosis mitigation in Dhar district, MP	January 2022 to December 2022	23,00,000	Frank Water, UK	NA	State: Madhya Pradesh District: Dhar, Villages-5

USAID-India Local Works Program Design Support Services

Objectives:

- To build on existing knowledge of air pollution and engage with local actors in Ahmedabad, Bhubaneshwar, Indore, and Mumbai to better understand local priorities, existing efforts and networks, and gaps in the local system.
- To co-develop solutions with communities to ensure they reflect local priorities that can be sustained through local leadership.

Activities:

- Create systems maps of the air pollution landscape in the four cities.
- Conducting Participatory Rural Appraisal (PRA) exercises.
- Sensor-based air quality monitoring and health surveys at vulnerable community sites 'bastis' in the four cities
- Development of a listening tool kit in coordination with USAID for conducting the listening tours.
- Organize listening tours in target cities to grasp the community's perspectives on air pollution, comprehend their challenges, and discern their expectations for overcoming the situation.

Focus Group Discussions with Stakeholders

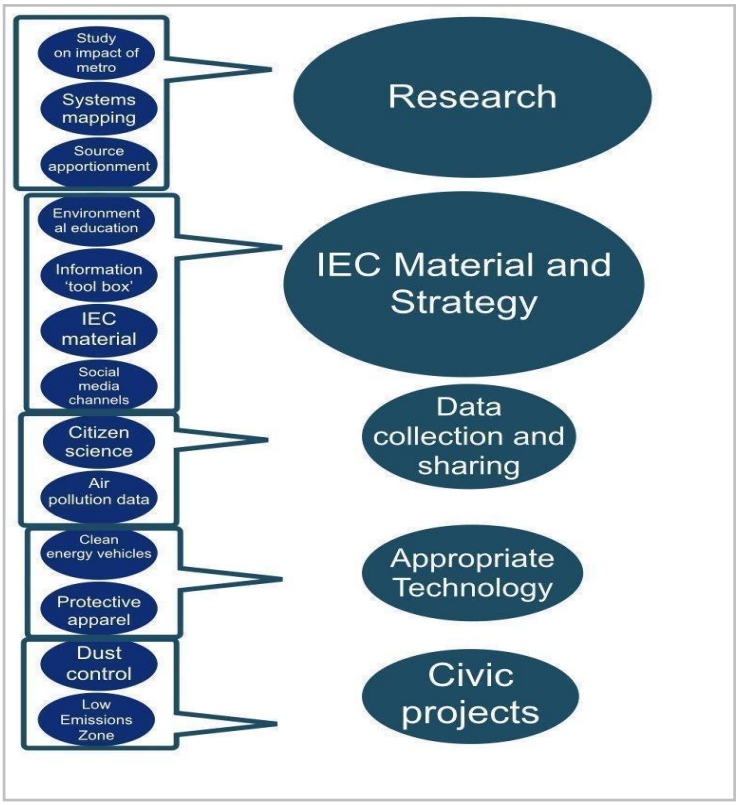
Outcomes:

- Identification of key stakeholders and creation of systems maps of the air pollution landscape in the four cities
- A comprehensive understanding of the impact of air pollution on marginalized communities' health
- Insights into local priorities, health concerns, existing efforts, gaps, and networks within the local system
- The insights gathered were integrated into the findings and actionable recommendations.
- The key highlights were an emphasis on the importance of addressing monitoring challenges, optimizing data usage for compliance, strengthening interactions among center-

state, inter-departmental, and other stakeholders, engaging proactively with the health community, and implementing robust communication strategies.

Key Findings:

- Eviction and water scarcity/poor water quality are the two primary mobilizing issues for people of less affluent classes.
- Residents of all four cities describe their awareness of worsening air quality using diverse sensory parameters.
- People living in less-affluent areas spoke of air pollution due to the proximity of dumping yards and burning of garbage. People in more affluent areas spoke of vehicular pollution.
- Doctors in all four cities reported an increase in the number of respiratory cases, and are concerned about worsening air quality.
- Citizen activists give low priority to air pollution, as compared to issues such as water, livelihood access or human rights.
- Industry representatives see little incentive to implement pollution mitigating measures when that involves an increase in costs.
- Pollution due to dust on the roads was universally acknowledged in all the cities. Vehicular pollution is being
- addressed partially by the phasing out of diesel and petrol vehicles to CNG and battery operated vehicles.



Recommended interventions for air pollution mitigation

- Relevant, timely, and understandable data related to air pollution was a need articulated in each city.
- Respondents in all four cities mentioned that existing laws to deal with air pollution are adequate, but enforcement needs to be done diligently.
- There is a general absence of multi-stakeholder platforms for discussions, sharing information, and strategizing around air pollution.

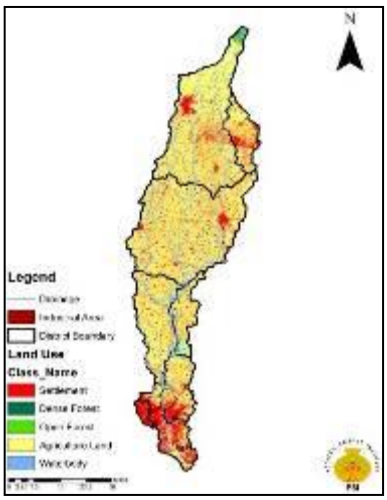
Co-creating Sustainable Agri-Water Use in the Hindon sub-basin –A Multi Scale Participatory Approach

Objectives:

- Examining the role of agricultural practices in depleting the water resources and causing pollution in the Hindon sub-basin.
- Collaborative development of agricultural strategies to alleviate pressure on the river system, ensuring productivity and competitiveness.
- Identifying and involving relevant stakeholders to guide and support the implementation of corrective measures for reducing pollution in Hindon River water.

Activities:

- Creation of spatial maps at the district and block levels based on surveyed literature.
- Collation of statistical data, including district-wise demographic information, land use, sources of irrigation, cropping patterns, area under different crops, production and productivity, and fertilizer consumption.
- Collection of samples for isotope analysis of river, groundwater, and rainwater samples.
- Participatory Rural Appraisal (PRA) in 12 Hindon sub-basin villages to gather essential data on existing cropping practices, agricultural chemical usage, and their effects on water pollution in the vicinity of these villages.



Land Use map of Hindon Sub-basin

- Initiate community-based water quality monitoring in three villages within the Hindon sub-basin. Mobilize the communities to embrace sustainable practices and enhance their awareness about pollution stress in the Hindon basin.

Consultation with farmers at Salfa Village

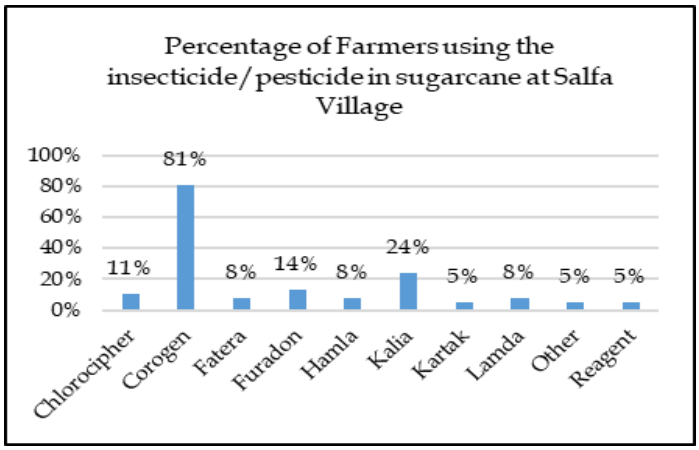
CBWQM at Govt. School, Sadhauli Hariya village

Hindon river water sampling at Sadhauli Hariya village

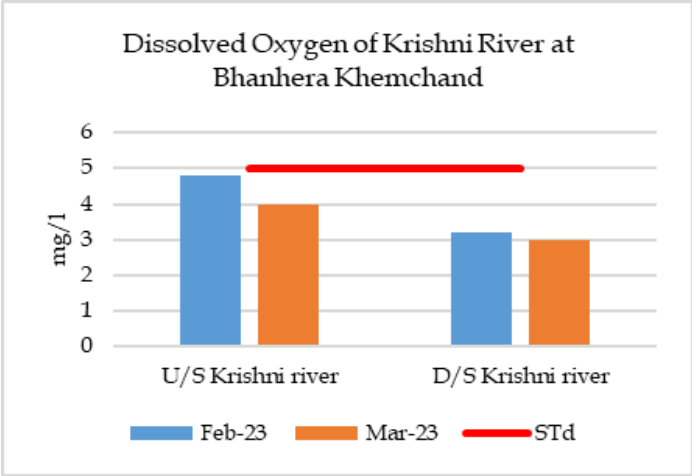
- Select critical villages for conducting detailed household surveys, gather comprehensive information on chemical input usage, assess health impacts at the household level, and estimate the economic aspects of chemical agriculture practices.

Key Findings:

- The PRA findings highlighted significant shifts in agricultural practices since 1980, notably the transition from organic to chemical farming methods. Furthermore, changes in water sources, such as the drying up of open wells, indicate a substantial decline in the water table, especially post-1980.



- The household surveys indicated that chemical fertilizers like DAP, Urea, and NPK, along with herbicides and pesticides such as 2,4-Dichlorophenoxyacetic acid (2,4-D) and Chlorantraniliprole (Coragen), are commonly used by most sugarcane farmers.
- The water quality monitoring results have shown a continuous deterioration in Dissolved Oxygen (DO) levels from upstream to downstream. It was observed that DO levels fell below the standard limit prescribed by CPCB, 1979, which is insufficient to support aquatic life.



- Five demonstrations of agro-ecological practices, including the System of Sugarcane Intensification, are planned on farmers' lands, focusing primarily on Bhanera Khemchand, Maleera, and Sadhauli Hariya Villages within the Hindon Sub-basin.
- The sharing of scientific knowledge among project partners and local stakeholders, coupled with demonstrations of sustainable agricultural practices, is expected to guide farmers and other water users in reviving the Hindon sub-basin and fostering sustainable development for riverine communities. Stakeholder mapping in the basin will reveal their existing and potential roles in the agri-water management of the Hindon basin.

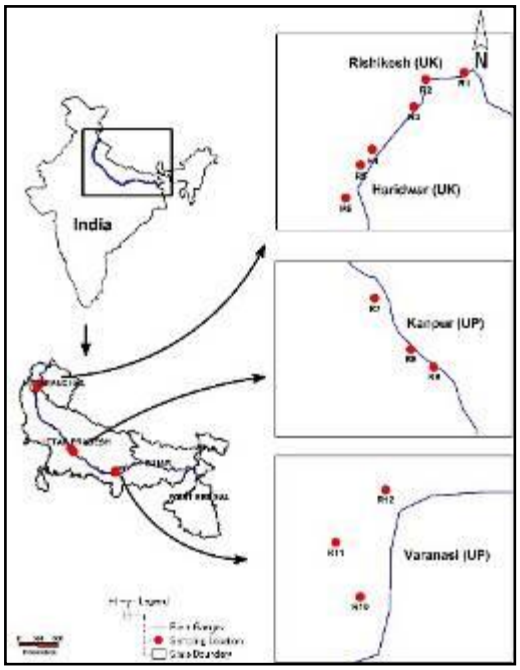
Assessing combined physical and social riverine vulnerability of the Ganges, India

Objectives:

- Conduct lab tests to determine the suitability of water surface quality for drinking and bathing.
- Utilize social science methods to identify the impacts of anthropogenic and general pollution on riverine communities.
- Generate maps based on the results from physical and social vulnerability assessments for comprehensive analysis.

Activities:

- Comprehensive monitoring of Ganga river quality both upstream and downstream of four selected cities.
- Analysis of physico-chemical and biological parameters at all 12 designated sampling sites.
- Conducted a total of 1079 surveys in four cities (Rishikesh-280; Haridwar-247; Kanpur-261; and Varanasi-291) involving diverse respondents directly or indirectly dependent on the Ganga River. Surveys aimed to understand the river's uses, significance, pollution levels, sources of contamination, the impact of the COVID-19 pandemic, and changes in water quality over the past decade. patterns of river water usage.

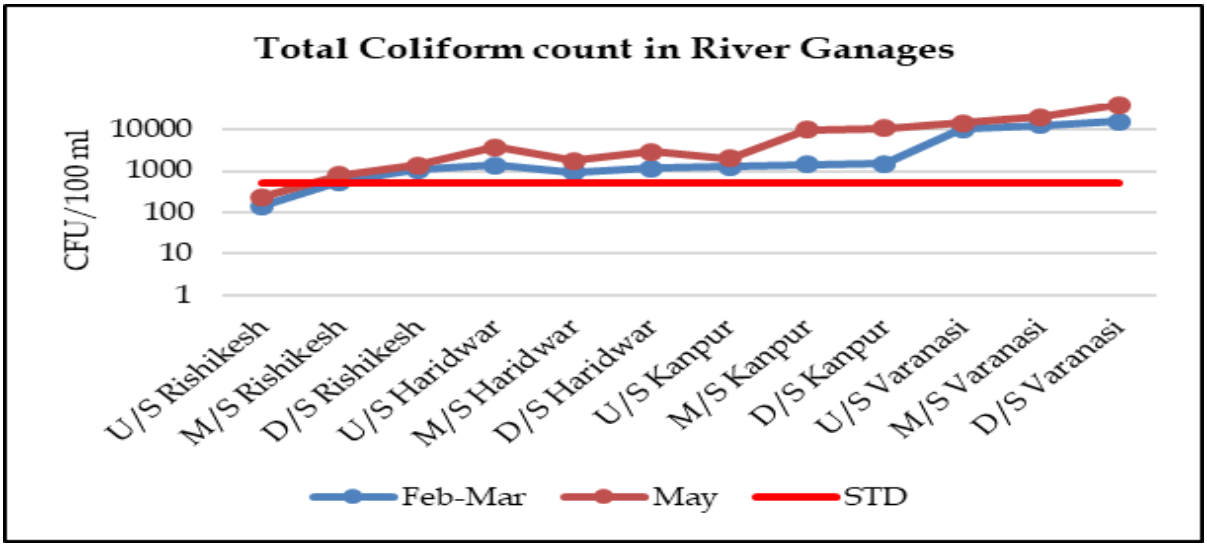


Sampling Stations of Ganga river

Water Sampling Upstream of Varanasi

Social Survey at Kanpur (U.P.)

Key Findings



Continuous Deterioration: Municipal and Industrial Influence on Water Quality

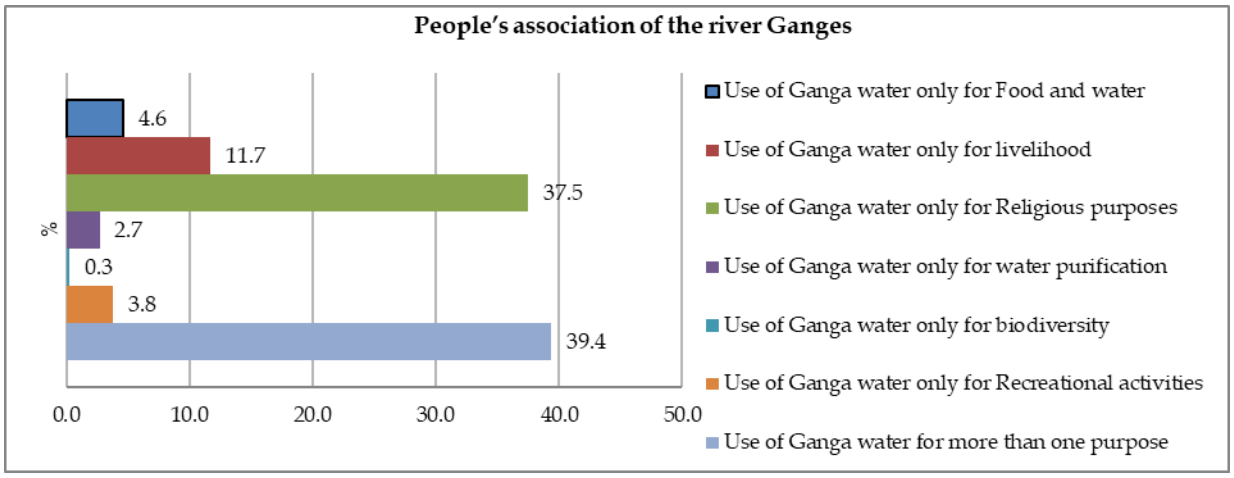
The water was found to be unfit for drinking and bathing except upstream Rishikesh

Barrages and Diversions: Factors Amplifying Water Quality Deterioration

Major effluent and drain contributions at Haridwar D/S (Jagjitpur STP) and Varanasi D/S (Varuna River).

Religious Significance and People's Perspective

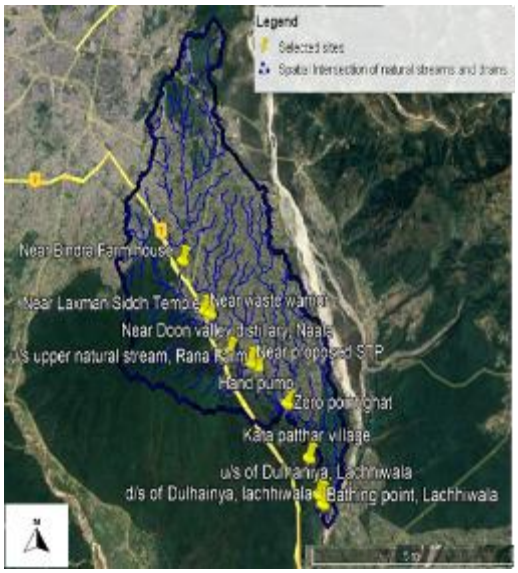
- 37% of the interviewed people mentioned their association with river water for religious purposes such as prayer, taking a holy dip, etc.
- 17% advocated the implementation of stringent rules for keeping the river clean
- 18% suggested the promotion of community involvement in Ganga cleaning activities



Water Quality Monitoring of Dulhaniya River at Different Locations in Dehradun

Objectives:

- Monitor the current water quantity and quality status of Dulhaniya River.
- Identify the effects of major and minor drains carrying municipal sewage and confluencing with Dulhaniya River.
- Assess the impact of proposed STP nearby Dulhaniya river.



Sampling Stations of Dulhaniya River at Dehradun

Activities:

- The water quality of Dulhaniya river, along with major and minor municipal drains, was studied in February 2023 to assess the current water quality situation.
- Various physico-chemical, bacteriological including identification of benthic macro invertebrate analysis have been done.
- Water flow of the river was monitored to measure the natural flow and contribution of other drains/streams joining the river.

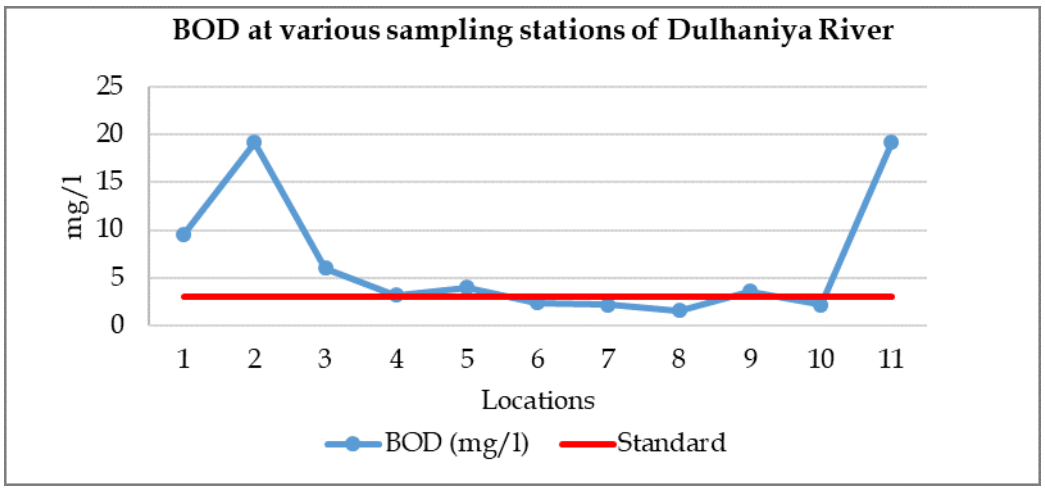
Water Sampling at Nakraunda Village, Dulhaniya River

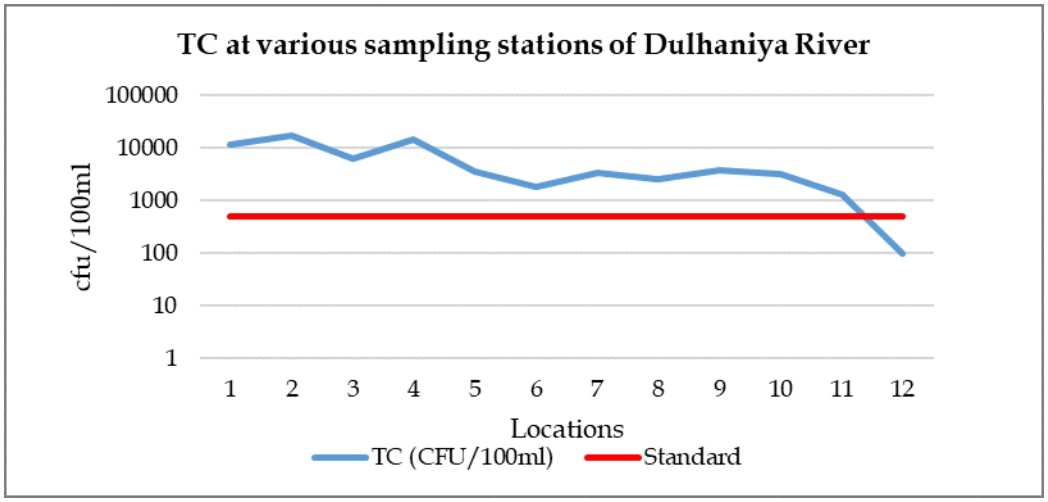
Flow measurement of Dulhaniya River at D/S of Lacchiwala Nature park

Key Findings:

- Out of the 11 sampling stations, 8 stations exceeded the standard limit for BOD. This could be attributed to the inflow from various municipal drains carrying organic waste from the city.

- Total coliform counts exceeded the prescribed standard limit at all sampling stations except S 12, where the outlet of Devipura Lake meets the river. Devipura Lake is a tourist destination where people bath, therefore, its water is chlorinated to eliminate bacterial contamination in the river water.
- According to the overall results of the analysis of river water sample, Dulhaniya river can be categorized into "B category" as per CPCB, 1979 for surface water.
- The current water quality is suitable for outdoor bathing and supports wildlife. However, there is a matter of concern regarding the disposal of the proposed STP outlet into the river. Will the treated water be suitable for wildlife and the Gujjar tribe, who depend on it?
- The river flow increases in Nakronda village due to base flow and confluence of natural streams into the river near Rana farm (532 lps) and Zero Point Ghat (2029 lps). The flow in the river also increases up to 3500 lps in Lachhiwala due to the confluence of Devipura lake water. This means that the river is getting recharge through base flow.





Community-based fluorosis mitigation in Dhar district, MP

Objectives:

To collaborate with the local government departments whilst implementing the Integrated Water Resources Management approach for WASH which will ultimately benefit marginalized communities suffering from fluorosis and drinking water scarcity.

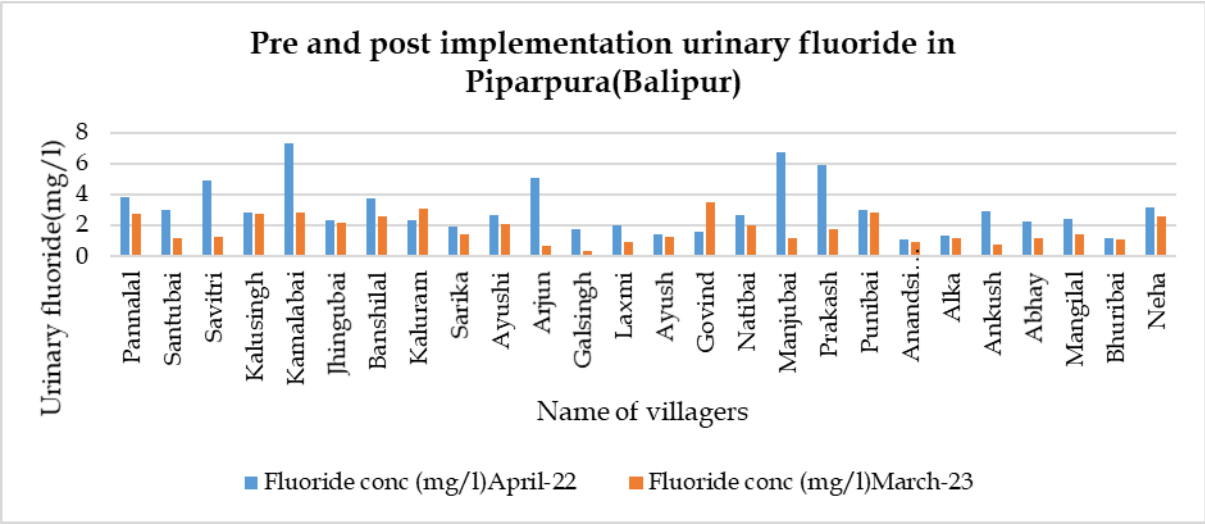
Activities:

- Implementation of household water supply system in 5 villages under Jal Jeevan Mission.
- Formation and capacity building of village-level institutions and frontline workers for O & M, and WASH.
- Planning for groundwater recharge measures and implementation through the gram panchayats.
- Improvement in sanitation by getting the toilets constructed through the government system along with the development of sanitation protocols.
- Raising fluorosis and hygiene awareness, and sharing the monitoring data at household level.

Key Findings:

Improving Community Health:

- Reduction in urinary fluoride among the communities through consumption of safe water.



- 100% achievement in all the villages on WASH indicators through continuous household-level awareness.
- Health camps organized in collaboration with the Health Centre and Panchayat benefitting more than 450 villagers.

Infrastructure Development: Progress in Sanitation Facilities

33 new toilets were constructed out of 70 requested under the Swach Bharat Mission. 12 soak pits constructed through PRI funds.

Environmental Conservation and Community Recognition

Two plantation camps were organized with PRI funds. 65 active villagers were felicitated on this occasion.

Empowering Women

Active participation of women in decision-making.

Global Recognition: Dhar Case Study at SIWI World Water Week

Selection of Dhar case study for virtual presentation at SIWI World Water Week contributing to the theme "Valuing Water for the Benefit of People"

8 सनसनीखेज समाचार इंदौर, 8 अगस्त 2022

जलवायु परिवर्तन को रोकेने के लिए पेड़ एक अनिवार्य हिस्सा

एक परिपक्व पेड़ एक साल में 10 लोगों को सांस लेने के लिए पर्याप्त ऑक्सीजन देता है

उमरबन/ जलवायु परिवर्तन तथा घटते जल स्तर की रोकथाम। जीवाश्म ईंधन को जलाने और जंगलों को काटने से जलवायु, पृथ्वी का तापमान और भूजल स्तर तेजी से प्रभावित हो रहा है। भूजल स्तर में गिरावट से पानी की कमी,और कुओं के सूखने से लेकर कृषि उत्पादन में ' मिक गिरावट तक गंभीर प्रभाव पड़ते हैं। पेड़ लगाना सबसे आसान और सस्ता उपाय है जलवायु परिवर्तन को रोकने के लिए।

IIId. Support to Government Programs

S. No.	Project Title	Total Project Period	Total Grant Amount (Rs.)	Funding Agency	Project Partners	Geographical Coverage
1	Shallow Aquifer Management for Gwalior city Under AMRUT 2.0	22 February 2022 to 31 October 2023	15,00,000	National Institute of Urban Affairs	ACWADAM and Gwalior Municipal Corporation	State: Madhya Pradesh City:- Gwalior Beneficiaries:- 1200 Households
2	Support agency for assisting SPMU in Implementation of Atal Bhujal Yojana in Haryana	9 July 2021 to 30 September 2022	51,55,405/-	Irrigation and Water Resource Department, Haryana	ACWADAM	State: Haryana Districts: 13 Blocks: 36 No. of Villages: 1669
3	Meghalaya Community Led Landscape Management Project (MCLLMP)	1 March 2020 to 31 May 2023	40,19,400	Meghalaya Basin Management Agency (MBMA)	PRASARI, CHIRAG, ACWADAM	State: Meghalaya Districts: North Garo Hills, West Garo Hills, South Garo Hills, South west Garo Hills No. of Villages: 10
4	Preparation of 4 springshed management plans in Dialdawk (2 springs) and Dakla (2 springs)	1 February 2023 to 31 May 2023	4,98,432	Irrigation and Water Resource Department	NA	State: Mizoram Districts- Aizawl and Mamit No. of Villages: 2 Beneficiaries: 52 Households
5	Springshed development for Forest Department	1 April 2022 to June 2023	11,23,000	Rudraprayag Forest Div, Civil Soyam Forest Div Pauri, Soil Conservation Forest Div Lansdowne, Lansdowne Forest Div Kotdwar and Solan Forest Div	NA	States: Uttarakhand and Himachal Pradesh Districts: Rudraprayag, Pauri (UKD) and Solan (H.P.) Beneficiaries:- 1976 Households

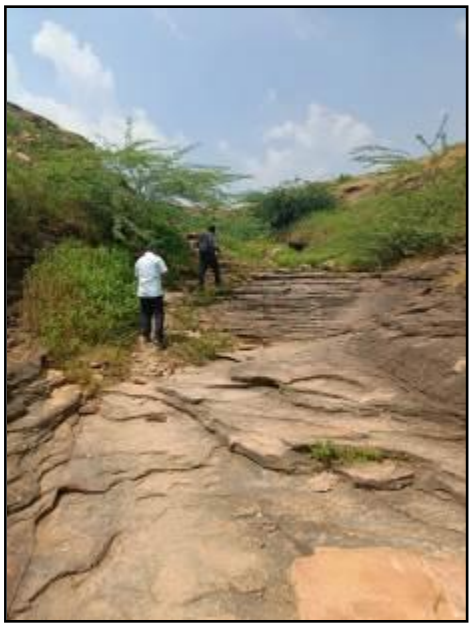
Shallow Aquifer Management for Gwalior City Under AMRUT 2.0

Objectives:

- Enhance the practical and action-oriented knowledge of city stakeholders on managing shallow aquifers in a scientific manner.
- Demonstrate the use of recharge wells, rain water harvesting and water conservation structures as the means to revive and rejuvenate depleting shallow aquifer for shallow aquifer management.
- Explore avenues to scale up the pilot to the rest of the city.

Activities:

- Engaged with Government and Non-government agencies in Gwalior city to assess the current situation of shallow aquifers and gather valuable insights.
- Organized a workshop to disseminate the significance of the AMRUT program for Gwalior city, fostering awareness and collaboration.
- Conducted comprehensive surveys to assess hydrogeological aspects and engineering feasibility, identifying suitable pilot sites for shallow aquifer recharge initiatives.
- Prepared a detailed technical report outlining the management strategies for shallow aquifers, incorporating findings from surveys and site assessments.
- Engaged with civic authorities to discuss project progress, ensuring alignment with civic initiatives.
- Installed monitoring systems at selected sites to track the progress and effectiveness of shallow aquifer recharge activities, enabling data-driven decision-making.



Hydrogeological and engineering survey at Lakmiganj.

Key Findings:

Geological Assessment for Hydrological Prospects: Comprehensive geological analysis of Gwalior to assess its hydrological potential, providing essential insights into the city's water resources.

Capacity Building and Stakeholder Engagement: Introduced over 100 professionals from diverse Government departments and NGOs to shallow aquifer management, enhancing awareness and collaboration in water resource initiatives.

Aquifer Mapping for Groundwater Movement: Implemented aquifer mapping to understand groundwater dynamics within and around Gwalior city, facilitating informed decision-making on water management strategies.

Groundwater Level Mapping: Created a groundwater level map of Gwalior city using data from 3000 water bodies supplied by Jal Nigam Gwalior. The map revealed disparities, with the Northeast region displaying the lowest groundwater levels and the Southwest exhibiting the highest levels.

Identification and Intervention at Aquifer Recharge Sites: Identified 17 potential shallow aquifer recharge sites in Gwalior city, finalizing 5 sites for intervention. Thorough design and estimation were conducted, considering the urban landscape for effective implementation.

Recognition and Publication: The groundwater level map received acclaim from the Ministry of Urban Affairs and was published in the Gwalior Groundwater Booklet, recognizing the significance of the findings in urban water resource planning.

भू जल संवर्धन के कार्यक्रम में निगमायुक्त व अन्य अधिकारी रहे मौजूद

देहरादून से आई टीम से कहा - 3000 वाटरबॉडी के लिए तैयार करवा दें डीपीआर

प्रजेंटेशन से समझाई अपनी बात

टीम सदस्यों ने बताई अपनी प्राथमिकताएं

भोपाल, शुक्रवार 10 जून 2022

भू जल संवर्धन को बढ़ावा देने के लिये बैठक आयोजित

Assisting State Project Management Unit (SPMU) implementation of Atal Bhujal Yojna (Atal Jal) Haryana

Objectives:

- To provide technical and process management support to the I&WRD for the successful implementation of Atal-Jal in selected districts of Haryana, aiming to improve groundwater management through community participation.
- To develop essential strategies, guidelines, manuals, and tools, design and facilitate workshops, provide technical assistance, enhance the capacity of key stakeholders, offer hands-on support to district and GP-level institutions, track processes, progress, and performance, and provide documentation assistance, among other tasks.

Activities:

A: Project Management

- Prepare scheme implementation manual, strategy, protocol, guidelines, framework, etc.
- Prepare a capacity-building plan along with modules and manuals.
- Provide support for financial management.
- Assist in establishing a monitoring mechanism.
- Handle reporting and documentation tasks.

Village meeting at Kurukshetra

B: Technical Services:

- Design Standard Operating Procedures (SOP) and tools for preparing Water Security Plans (WSP).
- Provide support to the State Project Management Unit (SPMU) for the review and approval of water security plans.
- Offer handholding support to SPMU.

C: Facilitation Services:

- Implement the capacity-building plan.
- Provide handholding support for the planning and implementation of water security plans.
- Assist SPMU in facilitating meetings and other activities, as well as in engaging and managing NGOs/DIPs.

Achievements:

- Prepared 32 block-level hydrogeological reports.
- Facilitated and verified 1200 Water Security Plans (WSP) for villages.
- Prepared district and block-wise baseline data, proposed plans, and allocations for DLI#3, ensuring strategic planning and effective implementation.
- Conducted 10 classrooms and 3 on-field training sessions for 110 personnel from the District Project Management Unit (DPMU), District Implementing Partners (DIP), and local NGOs on the components of Atal Bhujal and principles of Participatory Groundwater Management (PGWM).
- Prepared comprehensive state-level Information Education Communication (IEC) plan, Village level IEC, community mobilization booklet, and state capacity building plan.
- Developed and allocated approximately 150 Cr for incentive utilization and convergence plans, ensuring efficient resource allocation to departments including Agriculture, Horticulture, MICADA, Haryana Pond Authority, and Forest Department.

अटल भू-जल योजना का प्रमुख उद्देश्य हरियाणा में भू-जल संसाधनों का हाइड्रोजियोलॉजिकल डेटा नेटवर्क तैयार करना है : अनील गौतम

» सुरेश गुप्ता, मदरलैंड संवाददाता

पलवल। हरियाणा सिंचाई विभाग के अन्तर्गत राज्य परियोजना प्रबंधन इकाई से लोकविज्ञान संस्थान (पीएसआई) के विशेषज्ञ अनील गौतम ने बताया कि अटल भू-जल योजना का प्रमुख उद्देश्य हरियाणा में भू-जल संसाधनों का हाइड्रोजियोलॉजिकल डेटा नेटवर्क तैयार करना है और यह राज्य में भू-जल संसाधनों के प्रबंधन के लिए सामुदायिक संस्थानों के निर्माण को भी प्रोत्साहित करता है। इस मौके पर उन्होंने मिंडकोला के आस पास के क्षेत्र का दौरा किया। उन्होंने शनिवार को ग्राम क्यारोली में एक चौपाल पर ग्रामीणों को जल भराव की समस्या के संबंध में चर्चा की।

उन्होंने बताया कि भविष्य में इसके प्रति विभाग की ओर से उचित कदम उठाए जाएंगे।

उन्होंने बताया कि इस कार्यक्रम के तहत सामुदायिक लामबंदी और जागरूकता गतिविधियों के साथ-साथ हितधारकों के क्षमता निर्माण और पहचानकिए गए प्राथमिकता वाले क्षेत्रों में लोगों की भागीदारी को बढ़ाने पर विशेष बल दिया जाएगा। इस योजना में जिला कार्यान्वयन भागीदार एनजीओ के रूप में स्टेट प्रोजेक्ट मैनेजमेंट यूनिट के साथ मिलकर योजना के विभिन्न पहलुओं पर ग्राम पंचायत की मदद करेंगे। जिसमें जल बजट और जल सुरक्षा योजनाओं के विकास सहित सामुदायिक लामबंदीय जल उपयोगकर्ता एसोसिएशन का गठन, आंकड़ा संग्रहण, सूचना, शिक्षा और संचार आदि गतिविधियां शामिल हैं। सिंचाई विभाग अन्तर्गत हरियाणा में अटल भू-जल योजना अपने प्रारंभिक चरण में है और इसके कई सकारात्मक परिणाम सामने आने की उम्मीद है।

सिंचाई एवं जल संसाधन विभाग से कार्यकारी अभियंता धारिवाल ने बताया कि देश के एक बड़े हिस्से में भू-जल संसाधनों की कमी को दूर करने के लिए केंद्रीय मंत्रालय ने अटल भूजल योजना तैयार की है। इसका उद्देश्य सामुदायिक भागीदारी के माध्यम से देश में प्राथमिकता वाले क्षेत्रों में भू-जल प्रबंधन में सुधार करना है। हरियाणा में योजना के तहत भू-जल संसाधनों का हाइड्रोजियोलॉजिकल डाटा नेटवर्क तैयार किया जाएगा। यह राज्य में भू-जल संसाधनों के प्रबंधन के लिए सामुदायिक संस्थानों के निर्माण को प्रोत्साहित करेगा।

उन्होंने बताया कि हथीन क्षेत्र के आधा दर्जन गांव में सेम की समस्या रहती है। इसकी वजह से सैकड़ों एकड़ जमीन में फसल का उत्पादन नहीं होता है। अब सरकार इस समस्या का हल करने की तरफ कदम उठाने जा रही है। जल्दी ही अटल भूजल मिशन के तहत योजना बनाई जाएगी और उसे माइक्रो सिंचाई विभाग की जमीन में करीब तीन फुट नीचे पत्थर की परत है। पत्थर की परत होने के कारण जमीन बारिश के पानी का संरक्षण नहीं कर पाती है। इसलिए यहां पर जलभराव होता है। खारे पानी से बनी सेम खत्म हो जाएगी और जमीन उपजाऊ बनाई जाएगी। बाकी गांवों के पानी को नाले में डालने के लिए ट्यूबवेल या अन्य साधनों के बारे में योजना बनाई जाएगी। ये योजना हम माइक्रो सिंचाई विभाग के साथ मिलकर बनाएंगे। गांवों का मौका भी देखा जाएगा।

इस मौके पर कनिष्ठ अभियंता राहुल व डीआईपी टीम से रनेहा एवं उनकी टीम ने हिस्सा लिया और लोगों को योजना के बारे में विस्तार से बताया तथा किसानों द्वारा सुझाए गए सुझावों को भी डब्लू एस पी में शामिल किया जायेगा।

- Developed and finalized Standard Operating Procedures (SOPs) for district and community-level activities, including training, rain gauge installation, well inventory, water level measurement, water quality testing, and water flow measurement.
- Facilitated campaigns, presentations, and progress reviews with key stakeholders, including the Chief Secretary, JS-MoJS, GOI, HWRA chairperson, CGWB, DPMU, NPMU, and DIPs.
- Coordinated meetings with various line departments (MICADA, Pond Authority, I&WR) to monitor incentive fund progress and utilization, submitting detailed plans and financial allocation data.

Springshed Development program with Meghalaya Basin Management Agency (MBMA); Irrigation and Water Resource Department, Aizawl, Mizoram; and Forest Department of Uttarakhand and Himachal Pradesh

Objectives:

Meghalaya Community Led Landscape Management Project (MCLLMP):

- Evaluate CNRMPs to identify areas for improvement in the component of springshed development.
- Provide training to concerned stakeholders in fundamental concepts of hydrogeology, aquifer dynamics, spring inventory techniques, discharge measurement, and water quality assessment.
- Conduct hydrogeological mapping and define spring recharge areas for sustainable resource management.
- Assess implementation initiatives led by different District Project Management Units (DPMUs) in alignment with CNRMP guidelines.

Irrigation and Water Resources Department, Mizoram:

- Conduct detailed hydrogeological mapping to define recharge areas for springs
- Provide engineering recommendations and cost estimates for identified springs
- Deliver practical training sessions for geologists and engineers from the Institute of Water Resources Development (IWRD).

Forest Department, Himachal Pradesh and Uttarakhand:

- Conduct comprehensive mapping of springs in 4 forest divisions to understand springs' hydrogeological characteristics

Field Training of I&WRD Mizoram officials on Springshed Management

Field Training on Springshed Management, Forest Department Solan HP

- Compile in-depth technical reports outlining springs' geology and hydrological features within forest divisions
- Provide training to relevant stakeholders on effective springshed management strategies and the process of preparing Detailed Technical Reports (DTRs)

Activities:

MCLLMP	IWRD, Mizoram	Forest Department, UKD & H.P.
• Field-based training and vetting of the SDM component of CNRMPs. • State-level workshop on critical assessment of soil and water conservation measures adopted and potential of agroforestry in the state of Meghalaya.	• Hydrogeological and engineering feasibility surveys of 4 springs in 2 villages of Aizawl and Mamit Districts. • Field training for Hydrogeologists and engineers. • Hydrogeological mapping of 2 watersheds.	• Hydrogeological and engineering feasibility surveys of 35 springs in 4 forest divisions. • Preparation of Detailed Technical Reports for 30 springs. • Training on Springshed Development for the forest department.

Outcomes:

Capacity Building and Positive Engagement: Meghalaya Basin Management Agency (MBMA) conducted springshed management training sessions, receiving positive responses from participants. Plans are underway for additional training sessions with communities in Meghalaya, indicating a proactive approach to capacity building.

Expansion of Collaborative Projects: The Brahmaputra Board, inspired by the project's success, is planning more collaborative projects in partnership with the Irrigation and Water Resource Department. The shared highlights of this project have paved the way for future endeavours in the region.

Strengthened Partnerships for Sustainable Management: The Forest Department in Uttarakhand has emerged as a good working partner for future springshed management plans, reflecting the foundation for sustainable initiatives in the region.

Anticipated Growth and Expert Training: The Forest Department in Himachal Pradesh is enthusiastic about upcoming springshed management projects and comprehensive Para-hydrogeologist training programs. This anticipation underscores the commitment to continuous growth and expertise in managing vital water resources.

IV. OUR PUBLICATIONS 2022-23

- Dass, B.; Daniel, D; Saxena, N.; Sharma, A.; Sen, D.; Sen, S. 2023: "Informing watershed management in data-scarce Indian Himalayas", Water Security, Volume 19, https://doi.org/10.1016/j.wasec.2023.100138
- Yasmin, T., Khamis, K., Ross, A., Sen, S., Sharma, A., Sen, D., Sen, S., Buytaert, W., and Hannah, D. M., 2023: "Brief communication: Inclusiveness in designing an early warning system for flood resilience ", Nat. Hazards Earth Syst. Sci., 23, 667–674, https://doi.org/10.5194/nhess-23-667-2023.
- Towards the attainment of household-level water supply and Gram Swaraj under JJM, Jal Jeevan Samvad, 27th Edition, December 2022.

  https://jalshakti-ddws.gov.in/jaljeevansamvad/2022/december/en/index.html#p=19

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V. ICC REPORT

- No complaint was received in 2022-23.
- Compliance requirements under the ACT were fulfilled in terms of:
  - ✓ Dissemination of PSI's POSH policy to the staff
  - ✓ Certified online courses on POSH for IC Members, Managers, and staff
  - ✓ Posters and notices in the office to create awareness regarding the law
  - ✓ Quarterly IC meetings
  - ✓ Submission of the annual report to the District Officer
- Ms. Sumita Nanda, Chief Operating Officer of Latika Roy Foundation was appointed as the External Member in June 2022.

VI. FINANCIAL REPORT

Project Wise Financial Statement (2022-23)

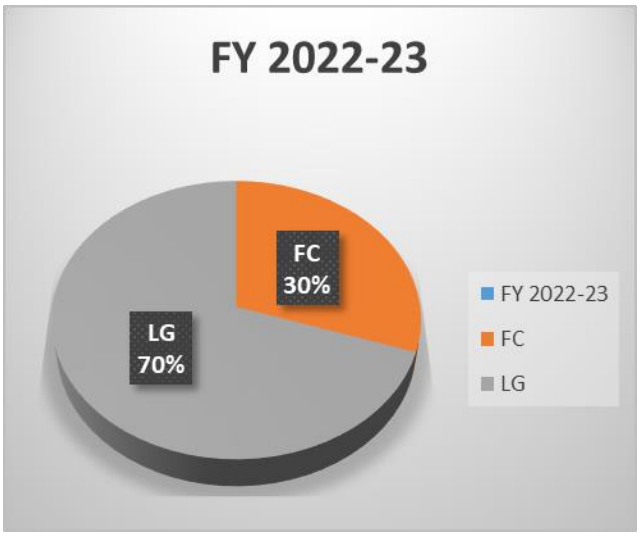
S. No.	Project	Funding Partner	Opening Balance (Rs.)	Income (Rs.)	Utilization (Rs.)	Balance (Rs.)
1	Fluorosis Mitigation	Frank Water	10,17,671	36,59,907	46,77,578	-
2	Ganga Water Quality Monitoring	University of Central Lancashire (UCLAN)	1,11,018	4,61,550	350532	-
3	Uttarakhand Flood Disaster	Individuals	12,20,462	-	12,20,462	-
4	Holistic Village Development Through Watershed approach in Haridwar.	Mahindra & Mahindra Ltd.	12,59,961	4,469	1264430	-
5	To demonstrate & extend a model of climate smart agriculture	Azim Premji Philanthropic Initiatives PVT LTD (APPI)	88,92,685	1,69,335	97,94,181	- 7,32,161.00
6	Aligning Farming with Nature across Agro-ecologies in MP	Self-Reliant Initiatives through Joint Action (SRIJAN)	6,00,014	26,44,734	25,80,570	6,64,178
7	Springshed Development in Chamoli District, Uttarakhand.	CMA CGM Agencies (India) Private Limited	19,54,068	-	1954068	-
8	To collaborate and intensify their engagement to promote water security, through integrated water management, based on scientific data and evidence-based decision support system in the state of H.P.	Wheels Global Foundation, India	-1,98,785	6,75,000	611163	-1,34,948
9	Co-creating Sustainable Agri-Water Use in the Hindon sub-basin –A Multi Scale Participatory Approach.	Indian Institute of Science Education and Research (IISER), Kolkata	-81,960	16,61,501	13,02,182	2,77,359
10	"Implementing Livelihood initiative for Financial Empowerment in (20 villages) of Nanital district, Uttarakhand & 5 Villages in Solan district, H.P.	LIC HFL	10,53,063	57,06,449	68,76,581	-1,17,069
11	An early warning system to improve adaptive capabilities and resilience of vulnerable Himalayan	University of Birmingham	-12,85,328	12,85,328	-	-

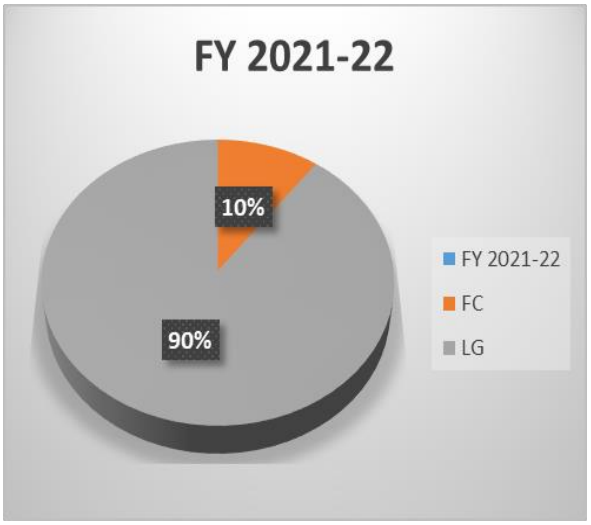
S. No.	Project	Funding Partner	Opening Balance (Rs.)	Income (Rs.)	Utilization (Rs.)	Balance (Rs.)
	communities to extreme rainfall and flooding.					
12	Air Pollution Local Work Program	U.S Aid India	-5,65,698	92,05,276	6039294	26,00,284
13	To collaborate and intensify their engagement to promote water security, through integrated water management, based on scientific data and evidence-based decision support system in the state of Himachal Pradesh.	Wheels Global Foundation, USA	-	6,40,513	640513	-
14	Development and Implementation of Science-Based Spring shed Management in Indian Himalayan Region	ICIMOD	6,28,538	14,36,873	-	6,28,538.00
15	Project implementation phase (PIP) of Kamyaraula Springshed based watershed development project in Syaldey block of Almora district under Watershed Development Fund (WDF) of NABARD to People's Science Institute (PSI).	Watershed Development Fund of NABARD	-	1,74,000	287073	-1,13,073
16	Project implementation phase (PIP) of Khirganga Springshed based watershed development project in Kapkot block of Bageshwar district under Watershed Development Fund (WDF) of NABARD to People's Science Institute (PSI).	Watershed Development Fund of NABARD	-	1,74,000	215007	-41,007
17	Environment Education program & Service-Projects		24,60,324	1,32,15,370	11262237	4413456

PSI's balance sheet and consolidated income and expenditure account for 2022-2023, ending March 31, 2023 are attached as Annexures 1a and 1b.

During the year the Institute generated grants worth Rs. 1,84,61,214 and donations worth Rs. 1,46,180. Other receipts from bank interest, consultancies, sale of products and publications amounted to Rs. 2,41,73,695. Adding the opening balance and other incomes the total income for 2022-2023 amounted to Rs. 5,70,79,680. The Institute spent Rs. 5,52,92,222 leaving a balance of Rs. 17,87,458. Unutilized grants carried forward amounting to Rs. 3,44,455 the surplus transferred to the capital fund is Rs. 14,43,003**.**

The pie-charts below show the sourcing of income from local grants & donations and foreign grants & donations for 2022-2023 & the previous year.





The main donors for local and foreign grants for 2022-23 are listed below. PSI is thankful to all of them for their support.

Indian: ACWADAM, Azim Premji Philanthropic Initiatives PVT LTD (APPI), Self-Reliant Initiatives through Joint Action (SRIJAN), CMA CGM Agencies (India) Private Limited, WGF India, IISER, LIC HFL, Amity University, NABARD - Uttarakhand, Forest Department - Uttarakhand, GIZ India, Ambuja Cement Foundation, Irrigation and Water Resource Department - Haryana, Banwasi Sewa Ashram, US Aid India, National Institute of Urban Affairs, IIT Roorkee, Irrigation and Water Resource Department - Mizoram, Meghalaya Basin Management Agency.

Foreign: Frank Water, ICIMOD, University of Central Lancashire (UCLan), University of Birmingham, US Aid India, WGF USA.

VII. EXECUTIVE BOARD 2022-23

Prof. Shambu Prasad	Chairperson	Rural Management
Prof. Janki Andharia	Treasurer	Disaster Management
Dr. Kshama Metre	Member	Medical Practitioner
Dr. Himanshu Kulkarni	Member	Hydrologist
Dr. Sumit Sen	Member	Prof. (Hydrology) ,IIT- Roorkee
Dr. Malavika Chauhan	Member	Independent Consultant
Dr. Debashish Sen	Director (Ex-Officio)	Scientist

VIII. PSI STAFF 2022-23

S. No.	Name	Date of Joining	Date of Leaving
1.	Abhishek	01.04.2018	
2.	Adarsh Shukla	01.08.2018	
3.	Akhilesh Chandra Shukla	12.01.2021	
4.	Alok Singh	01.04.2019	31.03.2023
5.	Amit Petwal	01.11.2016	
6.	Anil Kumar Gautam	01.03.2002	
7.	Anita Sharma	02.07.2012	
8.	Arjun Singh	01.06.2021	31.08.2022
9.	Arvind Kumar	19.07.2021	30.09.2022
10.	Arvind Nigam	06.06.2017	
11.	Balram Singh	06.08.2018	30.06.2022
12.	Bhagwati Pandey	20.03.2017	
13.	Chakaradhar Tripathi	15.06.1988	
14.	Darshan Lal	01.06.2013	
15.	Debashish Sen	01.03.1988	
16.	Dhara Singh	01.10.2016	
17.	Dharmendra Singh	18.06.2018	
18.	Diksha Upadhyay	01.05.2019	
19.	Dinesh Sharma	02.10.1997	
20.	Dineshwar Nath Dwivedy	17.08.1998	
21.	Gaurav Panwar	04.11.2020	
22.	Heena Kannauj	01.03.2016	
23.	Ipsita Roy	01.05.2020	23.03.2023
24.	Iqbal Ahmad	01.02.2020	
25.	Kajal	01.07.2021	
26.	Kamal Dabar	01.04.2019	

S. No.	Name	Date of Joining	Date of Leaving
27.	Khasti Devi	01.05.2018	
28.	Mahendra Wadhwani	15.06.2021	31.05.2022
29.	Makkan Singh	01.07.2017	
30.	Manoj Kumar	10.07.2006	
31.	Naveen Gusain	02.04.2018	
32.	Prem Narayan	01.11.2018	
33.	Prem Singh Rawat	01.09.2018	
34.	Priyank Bharti	01.04.2019	
35.	Puran Bartwal	03.01.2011	
36.	Pushp Ranjan	01.07.2021	30.09.2022
37.	Pushpa Juyal	21.12.1992	
38.	Rajesh Kumar	01.04.2018	
39.	Ram Sewak Prasad	01.11.1994	
40.	Ramesh Singh Rawat	16.09.2004	
41.	Salman Zaheer	16.05.2019	16.08.2022
42.	Sandeep Gussain	02.04.2018	
43.	Sandhya Chaudhary	17.04.2017	30.04.2022
44.	Sangeeta Chauhan	01.11.2020	30.09.2022
45.	Sanjay Uniyal	01.11.2017	
46.	Seema Ravandale	01.04.2017	
47.	Sharad Yadav	01.05.2017	
48.	Shyam D. Yawle	15.04.2021	
49.	Subhash Singh Rawat	01.06.2002	
50.	Syed Shahzad Rizvi	15.07.2021	30.09.2022
51.	Vikas Singh Panwar	18.06.2018	
52.	Vikram Singh	01.02.2000	
53.	Vinod Niranjan	15.01.2014	
54.	Jitendra Kachhwaha	16.04.2022	
55.	Amit Singh	01.04.2022	
56.	Amit Soni	28.04.2022	
57.	Vishal Choudhari	17.03.2023	

IX. INTERNSHIP 2022-23

S. No.	Name of the Intern	College/ University	Internship Period	Project Allocated
1	Rizwan Ahamed	Tata Institute of Social Sciences (TISS), Mumbai	April 1 to May 7, 2022	Implementing Livelihood Initiatives for Financial Empowerment (LIFE) supported by LIC -HFL
2	Preeti Jakhwal	Doon University	April 1 to June 30, 2022	Spring water quality monitoring of some villages in Kalsi, Dehradun" & survey analysis of River Ganga at Rishikesh and Haridwar
3	Kiran Rawat	Doon University	April 1 to June 30, 2022	Spring water quality monitoring of some villages in Kalsi, Dehradun" & survey analysis of River Ganga at Rishikesh and Haridwar
4	Akasdeep Nath	Indian Institute of Forest Management, (IIFM)	April 25 to June 30, 2022	Threat Analysis Through Ground Level Stakeholders Consultation for Renuka Wetland of Himachal Pradesh" and "Status of Springs in Narainbagar Block of Chamoli, Uttrakhand.
5	Ujjawal	Indian Institute of Forest Management, (IIFM)	April 25 to June 30, 2022	Threat Analysis Through Ground Level Stakeholders Consultation for Renuka Wetland of Himachal Pradesh" and "Status of Springs in Narainbagar Block of Chamoli, Uttrakhand.
6	Divyanshi Gupta	Indian Institute of Forest Management, (IIFM)	April 25 to June 30, 2022	Threat Analysis Through Ground Level Stakeholders Consultation for Renuka Wetland of Himachal Pradesh" and "Status of Springs in Narainbagar Block of Chamoli, Uttrakhand.
7	Nancy Kujur	Indian Institute of Forest Management, (IIFM)	April 25 to June 30, 2022	Threat Analysis Through Ground Level Stakeholders Consultation for Renuka Wetland of Himachal Pradesh" and "Status of Springs in Narainbagar Block of Chamoli, Uttrakhand.
8	Ajeet Kumar Prajapati	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Kanpur (U.P.
9	Dheeraj Shivhare	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Varanasi (U.P.)

S. No.	Name of the Intern	College/ University	Internship Period	Project Allocated
10	Neeraj Kumar Pandey	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Kanpur (U.P.)
11	Praduman Shrivastava	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Varanasi (U.P.)
12	Shivsant Trivedi	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Varanasi (U.P.)
13	Vikas Kumar Singh	Mahatma Gandhi Chitrakoot Gramodaya Vishwavidyalaya, Chitrakoot Distt. Satna (M.P.)	May 8 to May 22, 2022	Social riverine vulnerability of Ganga at Kanpur (U.P.)
14	Dhairya Khandelwal	DoMS, NALSAR University of Law, Hyderabad	May 2 to June 9, 2022	Impact of rural, agricultural and industrial activities on the water quality of the Hindon basin
15	Priyabrata Das	DoMS, NALSAR University of Law, Hyderabad	May 2 to June 9, 2022	Impact of rural, agricultural and industrial activities on the water quality of the Hindon basin
16	Suryansha Rawat	DoMS, NALSAR University of Law, Hyderabad	May 2 to June 9, 2022	Impact of rural, agricultural and industrial activities on the water quality of the Hindon basin
17	Vinayak Pathak	DoMS, NALSAR University of Law, Hyderabad	May 2 to June 9, 2022	Impact of rural, agricultural and industrial activities on the water quality of the Hindon basin
18	Shikha Kumari	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 2 to June 30, 2022	Impact Assessment of Farm Ponds in Panna District, Madhya Pradesh and Impact Assessment of Kitchen Gardens in Panna District, Madhya Pradesh
19	Sunny Kumar	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 2 to June 30, 2022	Impact Assessment of Farm Ponds in Panna District, Madhya Pradesh and Impact Assessment of Kitchen Gardens in Panna District, Madhya Pradesh
20	Dhirendra Kumar Prajapati	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 11 to June 30, 2022	Participatory Springs Inventorization – Identification of critical springs of seven villages of Chamoli district of Uttarakhand

S. No.	Name of the Intern	College/ University	Internship Period	Project Allocated
21	Nitika Mishra	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 11 to June 30, 2022	Participatory Springs Inventorization – Identification of critical springs of seven villages of Chamoli district of Uttarakhand
22	Rahul Kumar	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 9 to July 5, 2022	Participatory Analysis of Water Quality – Case Study of Village Malira Charthawal, Muzaffarnagar and village Baparsi, Sarurpur Khurd, Meerut
23	Shariq Hassan	PGDM-Rural Management Programme Xavier Institute of Social Service Ranchi, Jharkhand	May 9 to July 5, 2022	Participatory Analysis of Water Quality – Case Study of Village Malira Charthawal, Muzaffarnagar and village Baparsi, Sarurpur Khurd, Meerut
24	Avi Arora	Christ University, Bangalore, Karnataka	May 25 to June 24, 2022	Preparation of project briefs, creation of Project Timelines for 2018-19, 2019-20 and 2020-21, preparation of four Case Studies on livelihood activities being undertaken in Kandaghat valley of H.P. & preparation of short film on bee-keeping, turmeric processing and sewing and knitting activities
25	Prerna Sutar	UPES University	June 1 to July 31, 2022	Project: Conducting surveys in identified bastis to find possible health hazards due to air pollution in Bhubaneswar
26	Vibhor Minocha	University of Petroleum and Energy Studies (UPES), Dehra Dun	June 1 to July 29, 2022	Data collection, surveys, data analysis and report writing of surveys in vulnerable localities of Mumbai city, along with a systems map under the Air Pollution project funded by USAID
27	Tanisha Khandelwal	University of Petroleum and Energy Studies (UPES), Dehra Dun	June 1 to July 29, 2022	Data collection, surveys, data analysis and report writing of surveys in vulnerable localities of Ahmedabad city, along with a systems map under the Air Pollution project funded by USAID
28	Purvika Joshi	University of Petroleum and Energy Studies (UPES), Dehra Dun	June 1 to July 29, 2022	Data collection, surveys, data analysis and report writing of surveys in vulnerable localities of Indore city, along with a systems map under the Air Pollution project funded by USAID
29	Pratham Purohit	University of Petroleum and Energy Studies (UPES), Dehra Dun	June 1 to July 29, 2022	Data collection, surveys, data analysis and report writing of surveys in vulnerable localities of Indore city, along with a systems map under the Air Pollution project funded by USAID

S. No.	Name of the Intern	College/ University	Internship Period	Project Allocated
30	Kajal Patel	University of Petroleum and Energy Studies (UPES), Dehra Dun	June 1 to July 29, 2022	Data collection, surveys, data analysis and report writing of surveys in vulnerable localities of Indore city, along with a systems map under the Air Pollution project funded by USAID
31	Ms. Cmran Arora	Tata Institute of Social Sciences (TISS), Mumbai	June 7 to July 19, 2022	Household level Analysis of Dependency on Springs in villages of Solan district (Himachal Pradesh) and Chamoli district (Uttarakhand)
32	Reeta Bhatia	Symbiosis School of Economics, Pune	June 13 to July 9, 2022	Data analysis of Ganges river vulnerability of four cities of India based on collected social survey data
33	Vikas Singh	G B Pant Social Science Institute Prayagraj (UP)	January 1-31, 2023	Preparation of Livelihood Plan of Village Kaba Kalan, district Solan, HP
34	Prashant Kumar	G B Pant Social Science Institute Prayagraj (UP)	January 1-31, 2023	Preparation of Livelihood Plan of Village Halda, district Solan, HP

X. BALANCE SHEET 2022-23

PEOPLE'S SCIENCE INSTITUTE

ITBP Road, P.O.Kanwli, Dehradun-248001

AUDITED BALANCE SHEET AS AT 31st MARCH 2023

Amount in Rs.

CORPUS / CAPITAL FUND AND LIABILITIES	SCH.	2022-23			2021-22
		LG	FC	Total	Total
(a) Endowment Fund	A	-	5,97,837	5,97,837	5,97,837
(b) Campus Fund	B	2,20,230	36,85,298	39,05,528	45,33,628
(c) Reserve & Surplus	C	1,18,70,007	(14,65,574)	1,04,04,433	95,59,275
(d) Fixed Asset Fund		83,67,045	1,95,92,389	2,79,59,434	3,10,88,713
(e) Grant (to the extent Unutilised)	D	3,44,455	-	3,44,455	1,42,98,592
Receivable/ Unutilised (net)					
(e) Current Liabilities	E	7,10,774	-	7,10,774	10,81,634
(f) Staff Gratuity Fund		28,50,160	3,58,671	32,08,831	27,08,831
Total (Rs.)		**2,43,62,671**	**2,27,68,621**	**4,71,31,292**	**6,38,68,510**
Assets					
(a) Non Current Assets					
Fixed Assets	F	83,67,045	1,95,92,389	2,79,59,434	3,10,88,713
(b) Current Assets					
Cash and Cash Equivalents	H	41,12,499	11,96,926	53,09,425	82,77,287
Other Current Assets	I	68,31,451	-	68,31,451	45,97,660
Investments	G	50,51,676	19,79,306	70,30,982	1,99,04,850
TOTAL (Rs.)		**2,43,62,671**	**2,27,68,621**	**4,71,31,292**	**6,38,68,510**

For Singh Satish & Associates
Chartered Accountants
FRN: 032138N

SINGH SATISH & ASSOCIATES * Chartered Accountants * 032138N NOIDA

Satish K. Singh
FCA; BCOM(H)
Membership No. 526351
Place: New Delhi

For People's Science Institute

Prof.Shambu Prasad.
President

Dr.Debashish Sen
Director

PEOPLE'S SCIENCE INSTITUTE

ITBP Road, P.O.Kanwli, Dehradun-248001

AUDITED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2023

Amount in Rs.

INCOME	Sch.	2022-23			2021-22
		LG	FC	Total	Total
Donations & Project Grants	J	1,11,47,425	74,59,969	1,86,07,394	4,75,19,828
Interest Income	K	6,59,788	2,94,588	9,54,376	7,94,891
Environment Education and Services Receipts	L	1,78,54,172	51,50,484	2,30,04,656	1,36,75,289
Other Income	M	2,14,663	-	2,14,663	2,40,371
TOTAL		**2,98,76,048**	**1,29,05,041**	**4,27,81,089**	**6,22,30,379**
Grant Unutilised C/f		1,53,98,056	(10,99,465)	1,42,98,591	1,57,87,371
Total		**4,52,74,104**	**1,18,05,576**	**5,70,79,680**	**7,80,17,750**
EXPENDITURE					
Expenditure					
Program Expenses	N	3,44,76,229	1,24,27,391	4,69,03,620	5,04,20,326
Administrative Expenses	O	55,52,600	28,36,003	83,88,603	91,60,649
Total		**4,00,28,828**	**1,52,63,394**	**5,52,92,222**	**5,95,80,974**
Transfer to Unutilised Grant		3,44,455	-	3,44,455	1,42,98,591
Transfer to Campus Fund		-	-	-	-
Transfer to Gratuity fund		5,00,000	-		
Transfer to Fixed Assets Fund		83,112	14,732		
Excess of Income over Expenditure		43,17,709	(34,72,550)	14,43,003	41,38,185
TOTAL		**52,45,276**	**(34,57,818)**	**17,87,458**	**1,84,36,776**

For Singh Satish & Associates
Chartered Accountants
FRN: 032138N

SINGH SATISH & ASSOCIATES 032138N NOIDA Chartered Accountants

Satish K. Singh
FCA; BCOM(H)
Membership No. 526351
Place: New Delhi

For People's Science Institute

Prof.Shambu Prasad.
President

Dr.Debashish Sen
Director