

REGIONAL TRAINING

GESI-responsive springshed management in the Hindu Kush Himalaya

29 January-1 February 2025 | Swami Rama Himalayan University, Jolly Grant, Dehradun, India

Objectives**The specific objectives of this training are to:**

- Provide an interdisciplinary approach to understanding spring systems in the HKH, translating into knowledge and skills for springshed management to enhance the socio-ecological resilience of local communities
- Build skills regarding springshed management activities through sound concepts, analyses, and field experience; develop a systematic methodology grounded in hydrogeology alongside disciplines such as climate, environment, and water governance
- Understand and analyse experiences and impacts of springshed management under different conditions across the HKH region
- Learn to use appropriate innovative water supply technologies

Expected outcomes

- Increased awareness about the importance of springs and springsheds in the HKH region
- Expanded scope of training needs, skill sets, and curricula to promote awareness and capacity-building for springshed management across the region
- Greater inclusion of springshed management concepts, approaches, and skills into higher education curricula
- Strengthened skillsets in teaching and practicing springs analysis and springshed management along with its impacts through a transdisciplinary approach
- Increased and improved action research on springs and springsheds within formal and informal education structures, particularly by offering relevant topics for postgraduate and doctoral research
- Knowledge of innovative water supply technologies

Venue

Classroom-based lectures will take place at the SRHU, Dehradun and with field modules at Tehri in Uttarakhand.

Learning approach

The course aims to fill the above-stated gap by enhancing the capacities of the training participants on the [six-step methodology for reviving springs](#) in the HKH as a Nature-based Solution (NbS). The training follows a learner-based pedagogy requiring active participation from all course participants. The training includes class-based sessions with expert inputs combined with group work, field exercises, and real-life case examples from the HKH. Module-based group exercises will enable participants to put their learning into practice and collectively seek answers to topic-related questions. Participants will showcase poster presentations/experience sharing on their region's springshed and water management

practices. They will also prepare brief action plans with ideas on how springshed management can be integrated into their work and their home organizations.

Course programme

The four-day residential training will have three components: sharing good water management practices by participants, classroom lectures and exercises (three days) by experts and fieldwork (one day) for hands on practice. The training will focus on springshed management concepts, a six-step methodology for spring revival, traditional wisdom with advanced technologies, action planning and knowledge sharing among participants.

Key points of training

- Springshed management activities based on sound concepts, analysis, and field experience and new innovative technologies for the revival of springs.
- Traditional water conservation knowledge and types of traditional water bodies in the Himalayan region and their conservation practice.
- Empowering women and integrating socially inclusive approaches in springshed management and water sustainability initiatives.
- Greywater management and technologies for aquifer recharge through NbS.
- Practical approaches and techniques required to effectively monitor the chemical, hydrological and microbiological elements of water quality.
- Innovative technologies for efficient water management.

Background

Springs play an important role in the daily lives of thousands of rural and urban communities in the hills and mountains of the Hindu Kush Himalaya (HKH). Springs are also important for ecosystem services as they improve base flow in rivers, support biodiversity, and provide cultural and spiritual services. However, in many places, once-reliable springs are drying up or their discharge is reducing, presenting rural communities, women in particular, with new challenges. There is also growing concern about the quality of spring water because of contamination from different sources – geogenic and anthropogenic.

In the Himalayan region, natural springs and their sustainable development are gaining attention from policy, practice and science aspects. For instance, the National Institution for Transforming India (NITI) Aayog, the Department of Land Resources (DoLR), the Ministry of Jal Shakti and others in India as well as the Department of Water, Royal Government of Bhutan and local governments in Nepal are including springshed management in their programmes and plans.

However, one of the main gaps for scaling springshed management is inadequate capacities of government and other stakeholders for planning and implementing springshed management for not only water security but also biodiversity and climate adaptation co-benefits. Hence, there is an urgent need for raising awareness among academia and relevant policy and decision makers, and to develop skills and share knowledge on this critical topic with field practitioners and community members.

Most trainings on springshed management so far have targeted civil society organizations across the HKH region. It is equally crucial to extend this training to government officials, researchers, practitioners, and community members who can play a key role in scaling out springshed development and management methodology and integrate conceptual and field experiences into their areas of work and portfolios.

About the organizers

ICIMOD is a regional knowledge development and learning centre serving eight regional member countries in the HKH – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan – and based in Kathmandu, Nepal. ICIMOD works with a diverse range of partners from its regional member countries to generate and share knowledge through a common platform for enhancing the collective understanding of spring revival and springshed management. A six-step protocol on springshed management has been developed through various interdisciplinary partnerships and participatory field experiences, and further sharpened through a detailed methodology of springshed management developed under a collaboration between ICIMOD and Advanced Centre for Water Resources Development and Management (ACWADAM) over the past few years. Capacity building in relation to the protocol holds great potential for implementing a common methodology for springshed development and management in the HKH region.

NIHE was established in 1988-89, during the birth centenary year of Bharat Ratna Pt. Govind Ballabh Pant, as an autonomous Institute of the Ministry of Environment, Forest & Climate Change (MoEF&CC), Govt. of India, which has been identified as a focal agency to advance scientific knowledge, to evolve integrated management strategies, demonstrate their efficacy for conservation of natural resources, and to ensure environmentally sound development in the entire Indian Himalayan Region (IHR). The Institute attempts to maintain a balance of intricate linkages between socio-cultural, ecological, economic and physical systems that could lead to sustainability in the IHR. To achieve this, the Institute follows a multidisciplinary and holistic approach in all its Research and Development programmes with emphasis on interlinking natural and social sciences.

SRHU, a NAAC A+ accredited university in Dehradun (promoted by Himalayan Institute Hospital Trust founded by HH Dr. Swami Rama in 1989), is dedicated towards transforming lives through a holistic approach. By integrating quality health care services with impactful rural development and social outreach programs, SRHU fosters academic and professional excellence with a focus on societal well-being. Water and Sanitation Department - Rural Development Institute support and serve Water-Sanitation-Hygiene services to the mountainous and rural community since 1998. Vision of department is to improve quality of life of people through enabling water, sanitation, and environment services in sustainable manner. SRHU has been acknowledged as Key Resource Center for PAN India by the Ministry of Jal Shakti, Government of India.

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