

TRAINER'S MANUAL

GESI-responsive springshed management



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Production team

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Sunipa Das Gupta (Publication Coordination Officer, Editor)
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Photos

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Nabin Baral – pp. 15
Utsav Maden – pp. 80
Rajendra Shakya – pp. 99

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TRAINER'S MANUAL

GESI-responsive springshed management

Authors

Bharati Silawal-Giri¹

Goma Khadka²

Simran Silpakar²

¹ Consultant, International Centre for Integrated Mountain Development

² International Centre for Integrated Mountain Development

Abbreviations and acronyms

ACWADAM	Advanced Center for Water Resources Development and Management	KIIs	Key Informant Interviews
CARE	Cooperative for Assistance and Relief Everywhere	LGB	Lesbian, Gay, and Bisexual
CEAPRED	Center for Environmental and Agricultural Policy Research, Extension and Development	LGBTI+	Lesbian, Gay, Bisexual, Transgender and Intersex Plus
COP	Conference of Parties	LGBTIQA	Lesbian, Gay, Bisexual, Transgender and Intersex, Queer and/or Questioning, and Asexual
CRPs	Community Resource Persons	LULCC	Land Use and Land Cover Change
DSS	Decision Support System	M&E	Monitoring and Evaluation
FGDs	Focus Group Discussions	Q	Questioning
GEWE	Gender Equality and Women's Empowerment	RMCs	Regional Member Countries
GESI	Gender Equality and Social Inclusion	R&R	Review and Reflection
GPS	Global Positioning System	SDG	Sustainable Development Goals
GRB	Gender Responsive Budget	SOGIESC	Sexual Orientation, Gender Identity and Expression, and Sex Characteristics
HI-REAP	Himalayan Resilience Enabling Action Programme	T	Transgender
HKH	Hindu Kush Himalaya	UN	United Nations
I	Intersex	UNICEF	United Nations Children's Fund
IHR	Indian Himalayan Region	WASH	Water, Sanitation, and Hygiene
ICIMOD	International Centre for Integrated Mountain Development	WUCs	Water User Committees

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The manual builds on extensive consultations with over 50 experts, practitioners and decision makers from Bangladesh, Bhutan, India, Nepal and Pakistan, interactions with community members, and peer and literature reviews. The manual was further reviewed and refined following the 'Training of Trainers (TOT) on integrating GESI into springshed management', based on this manual.

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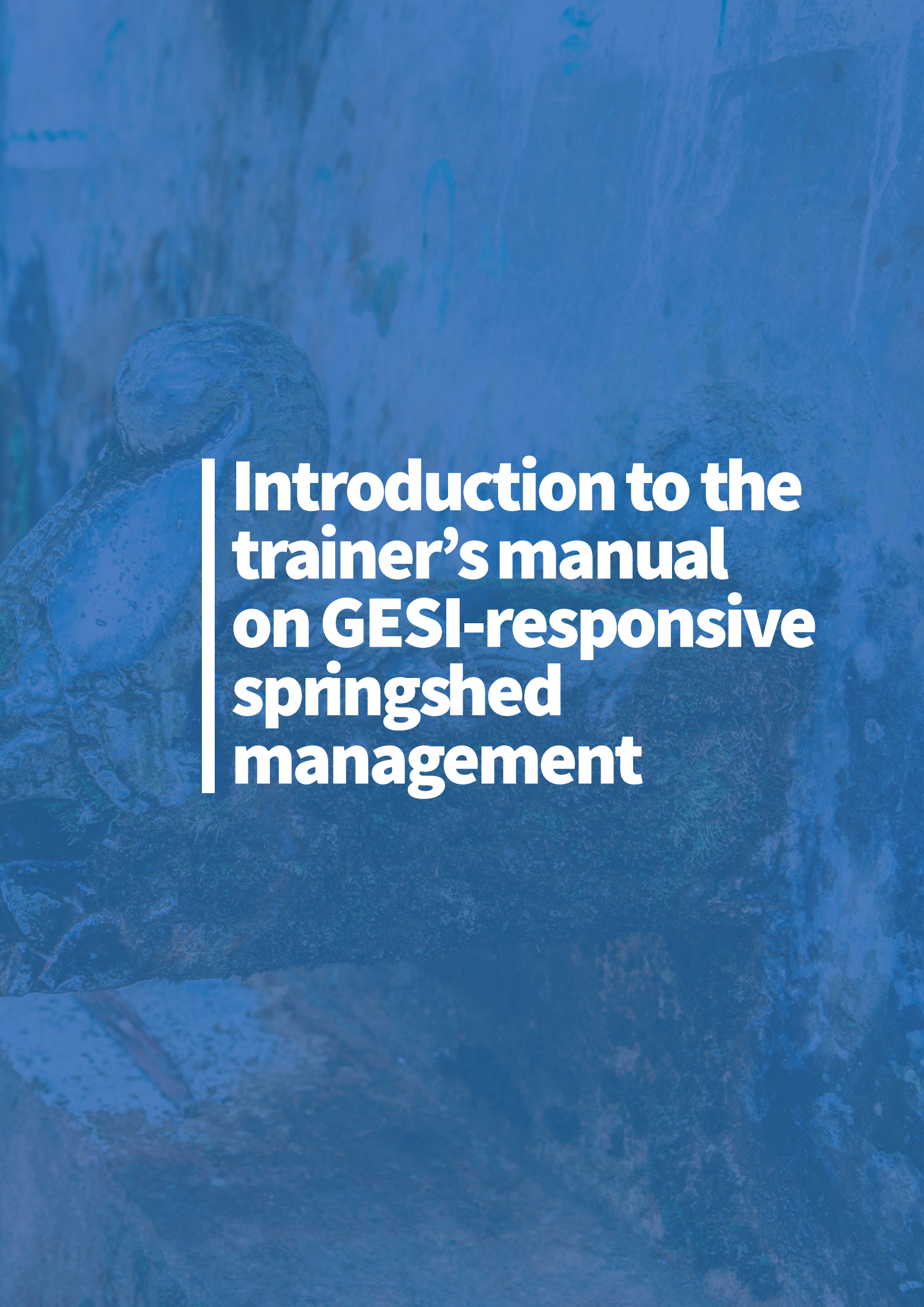
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Introduction to the trainer's manual on GESI-responsive springshed management

Background

Springs are natural discharge points where groundwater emerges at the surface, typically from rock pores, fractures, or aquifers. They are a vital source of water for drinking, irrigation, and household use for millions living in the mid-hills of the Hindu Kush Himalaya (HKH) region. Springs also sustain ecosystems, contribute to river base flows, and hold deep cultural and religious significance. However, many springs are drying up or showing reduced discharge due to climate change, erratic rainfall, land use changes, and forest degradation. Despite their importance, mountain hydrogeology remains poorly understood, leading to inadequate policies and mismanagement. The International Centre for Integrated Mountain Development (ICIMOD) has been working across the HKH to revive drying springs by strengthening science-based assessments, local knowledge, and inclusive governance systems to ensure water security and ecosystem resilience. Women and girls, who are primarily responsible for water collection in the HKH region, are disproportionately affected by spring depletion, highlighting the critical gender dimensions of spring governance and water security. In 2018, ICIMOD with the Advanced Center for Water Resources Development and Management (ACWADAM), developed a [six-step protocol for reviving springs in the HKH](#) to address the issue of water stress in the mid-hills and mountains brought on by the drying up of springs across the region.¹ This manual is the outcome of extensive consultations, interactions, expert interviews, and peer and literature reviews. Its main purpose is to provide clear methodologies and tools for integrating Gender Equality and Social Inclusion (GESI) principles and practices in spring revival and springshed management to complement ICIMOD's six-step protocol for spring revival.

Who is this manual for?

This manual is designed as a practical guide to help practitioners and institutions in ICIMOD's eight Regional Member Countries (RMCs) – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan - integrate GESI into springshed revival and management interventions. It provides comprehensive content and reference materials on integrating GESI into springshed management, serving as both a technical reference and a practical guide.

The preferred profile of training participants, batch size, and other details to be considered:

- Approximately 25–30 participants per workshop
- Mid to senior-level professionals and sector specialists
- Selected cross-sectoral ICIMOD staff involved in planning, monitoring, quality assurance, communication, and reporting
- Local community stakeholders
- A balanced representation of women and men participants

How to use this manual?

The manual is organised into ten thematic modules. Users can apply the full set of modules and steps in a comprehensive manner or select and adapt specific sections based on the context and requirement. This flexible design ensures that the manual can support both new and ongoing interventions. Given the diversity across the HKH region, contextual adaptation is essential. Users should tailor the content, tools, and training approaches to align with each country's unique cultural, social, political, and environmental context.

¹ Shrestha, R.B., Desai, J., Mukherji, A., Dhakal, M., Kulkarni, H., Mahamuni, K., Bhuchar, S. & Bajracharya, S. (2018). Protocol for reviving springs in the Hindu Kush Himalayas: A practitioner's manual. ICIMOD Manual 2018/4. Kathmandu: ICIMOD.

Training design of the manual

In adopting a GESI-responsive approach, the manual is focused on the premise that learning must be an ongoing process, which should not begin and end with a training workshop. Accordingly, the design includes the following: a cyclical training framework of one year with an initial orientation programme for the practitioners on the manual; facilitation of review and reflection (R&R) based on the practitioners' own experiences and learnings in using the manual; and refresher/advanced training based on the feedback and suggestions from the R&R. Such an approach will facilitate the development of a pool of local trainers, including those from relevant government institutions, to continue capacity-building efforts at the country level. The design recognises that meaningful progress toward GESI integration is only possible when individuals not only understand gender equality and social inclusion principles, but also internalise them, reflecting critically on the norms, biases, and power relations, and actively practise equality in both their personal and professional lives. The results of this initiative are aimed at shifting gears in attitudes and behaviour towards GESI through enhanced knowledge of its concepts and its integrating principles, approaches, processes, and their impacts.

Training approach and methodology

This trainer's manual is based on two underlying principles: GESI-responsive pedagogy; and participatory adult learning.

GESI-responsive pedagogy: It involves making the participants aware of their gender identities/biases and their impacts through a series of GESI capacity-building events.

Participatory adult learning: This recognises that the participants are experts in their own areas of practice; this implies using inclusive and experiential learning processes, building on the 'lived' experiences in the group.

The activities in this manual use a variety of tools such as lecturettes, brainstorming, experience sharing, field visits/case studies, simulations/role-plays, GESI analysis tools, and icebreakers to deepen the participants' understanding and knowledge about springshed revival and management from a GESI perspective.

Duration of the training

The training is designed to be carried out over five days. An outline agenda is included in Annexe I.

Training facilitation

- It is the responsibility of the facilitators to present each session's subjects and activities as clearly as possible.
- It may also be useful to bring in other resource persons for specific sessions.
- The workshop facilitators should ideally have:
 - Extensive experience using GESI concepts and tools.
 - Familiarity with GESI-integrating spring revival and springshed management.
 - Knowledge of GESI and other development issues.
 - Advanced capacity for GESI analysis initiatives in the HKH..
 - Strategic planning and programme formulation skills.
 - Experience in applying adult learning methodologies and workshop facilitation skills.
 - Understanding of watershed and springshed management, as well as of climate change.

Expected results

The following are the expected results of the training workshop based on the trainer's manual on GESI-responsive springshed management. After the training, the participants will be able to:

- Develop an enhanced understanding of GESI concepts.
- Recognise and implement practical measures to mainstream GESI in spring-revival initiatives.
- Understand the impact of GESI integration within the six-step spring-revival protocol and strengthening springshed management.
- Identify key steps for incorporating GESI in strategic planning and prioritise its inclusion in springshed management action plans.
- Identify gaps in the planning and implementation processes of GESI integration in springshed management.
- Develop an action plan for programmatic and institutional results on GESI by assigning clear roles and responsibilities for continuous learning and effective integration of GESI across planning, implementation, monitoring, and evaluation of key interventions.

Measuring the learning results

The participants will be able to assess their knowledge and skills related to GESI integration through pre- and post-training assessments. In addition, they will be reviewing what they have learnt and how they will apply it to their work. The participants will also conduct an overall evaluation of the training workshop.

Follow-up

Training is not an end in itself; it should have some connection with the implementation of springshed management strategies and processes.

As a follow-up to the training, the following can be ensured:

- Sharing and documentation of experiences and lessons learnt about integrating GESI in spring-revival initiatives and springshed management as part of R&R.
- Developing a tracking system to monitor progress.
- Facilitating access to the latest information on GESI integration from other organisations.

A photograph of a woman with dark hair, wearing a grey sweater and a red shawl, looking down at a blue smartphone. She is smiling slightly. To her right, another person is partially visible, looking towards the left. The background is blurred. The entire image has a blue overlay. The text 'Module descriptions' is written in white, bold, sans-serif font, preceded by a vertical bar '|'.

| Module | descriptions

MODULE 1

Introduction to the six-step protocol for reviving springs in the HKH

This module introduces the six-step protocol – a comprehensive stepwise process for studying, managing, and reviving springs in the HKH. The six-step protocol combines hydrogeology with social science and community action, which can be used both as a research tool for generating basic knowledge and to prepare detailed local implementation plans for spring revival. The step-by-step approach can be followed relatively easily by a diverse range of stakeholders after basic training.

MODULE 2

Introduction to Gender Equality and Social Inclusion

This module introduces foundational GESI concepts along with its integration principles and frameworks. Through participatory activities such as my life journey and role-play, it helps to reflect and uncover unconscious or subconscious gender biases and provides insights into crucial GESI issues including why water becomes an equality concern, especially in times of scarcity.

MODULE 3

Comprehensive mapping of springs and springsheds from a GESI perspective

This module provides a comprehensive foundation for understanding the importance of springs in the HKH region. It highlights the vital role of springs in supplying water for drinking, agriculture, livelihoods, and ecosystem health, while also exploring their deep religious and cultural significance. The module then examines key environmental challenges, especially climate change and how declining or shifting spring flows disproportionately affect women. Finally, the module focuses on the practical skills by covering

spring mapping and preliminary data collection, particularly on gathering GESI-disaggregated data and application of GESI-aware tools to better understand community and spring dynamics.

MODULE 4

GESI considerations in setting up a data monitoring system

This module highlights the critical role of women and youth as community data collectors in springshed management, emphasising both gender inclusion and stronger community ownership. It underscores the importance of systematically monitoring key parameters- spring discharge, water quality, and rainfall to support the collective conservation of spring water sources and the ecosystems linked to them. Such monitoring not only provides insights into community health but also reflects the ecological health of the springshed and provides insights that inform responsive and equitable policy decisions.

MODULE 5

Understanding social dynamics and governance systems related to springshed management

This module explores the social dimensions and governance frameworks that shape spring water management. It examines how intersectionalities, social hierarchies, and gender dynamics affect access to and control over spring water resources, highlighting the role of power relations. The module also emphasises GESI in water resource management, promoting principles of good governance, collective leadership, and ownership. Participants learn about GESI-responsive policies and the importance of integrating equality and inclusion into water governance. The module also covers the design and implementation of a GESI monitoring system, focusing on what to monitor and how to track social and governance outcomes effectively.

MODULE 6

GESI considerations in hydrogeological mapping, development of conceptual layout, and identification of recharge areas

This module highlights the significance of empowering and involving the community in the process of mapping spring recharge areas. It emphasises building knowledge and skills of women, youth, and marginalised groups to support and engage them during hydrogeological field visits to identify the key challenges and opportunities in spring revival and springshed management from a GESI perspective. It also stresses the importance of integrating local and indigenous knowledge into hydrogeological mapping and the development of conceptual layouts. Importantly, the identification of spring recharge zones must align with community priorities.

MODULE 7

Field visit

This module focuses on applying learning through a field visit to a spring site, where participants observe, collect, and analyse GESI data in the socio-economic, cultural, institutional, and governance dimensions of spring water use. It emphasises translating theoretical knowledge into a practical understanding of how communities interact with and manage spring resources. The findings and recommendations of such field visits will contribute to the development of an action plan.

MODULE 8

Integrating GESI in developing springshed management and governance protocols

This module highlights mainstreaming GESI in the implementation stage of spring-revival projects. By developing governance

protocols that integrate GESI, it endeavours to enhance a holistic, equitable, inclusive, and participatory approach to sustainable springshed management. Participants gain an understanding of the importance of engaging communities and integrating GESI interventions to ensure responsive and sustainable springshed governance.

MODULE 9

Measuring the GESI impact of spring-revival activities

This module highlights the importance of evaluating GESI impact of spring-revival and springshed management interventions. The module focuses on assessing how spring-revival interventions affect different gender and social groups. The module emphasises that measuring impact goes beyond technical improvements (like increased spring discharge) and must also capture changes in equity, inclusion, participation, and community well-being.

MODULE 10

Action plan for GESI integration in spring revival interventions

This module focuses on the pivotal theme of action planning within the context of GESI integration in the intervention design. By emphasising GESI principles, the module seeks to equip practitioners with the skills to incorporate GESI considerations into the core of the interventions. The development of action plans will guide practitioners to prioritise GESI in designing, planning, monitoring, and evaluating spring-revival interventions, while adhering to intervention goals, thereby fostering a comprehensive and forward-looking approach to intervention designs.



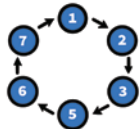
The background of the slide is a photograph of a forest floor, showing various types of leaves, twigs, and small plants. A semi-transparent blue filter is applied over the entire image. On the left side, there is a vertical white line that acts as a design element, separating the text from the background.

MODULE 1

Introduction to the six-step protocol for reviving springs in the HKH

SESSION 1

Understanding the six-step protocol for reviving springs in the HKH

	Session objective To gain an understanding about the six-step protocol for reviving springs in the HKH
	Session duration - 30 minutes
	Methodology - PPT presentation
	Materials required - Laptop - Projector - Screen
	Activity process - The facilitator will make a presentation on the six-step protocol for reviving springs in the HKH. - Referring to the trainer's manual, the facilitator will ensure that the session is interactive.
	Handouts

ACTIVITY 1 | PRESENTATION (30 min)

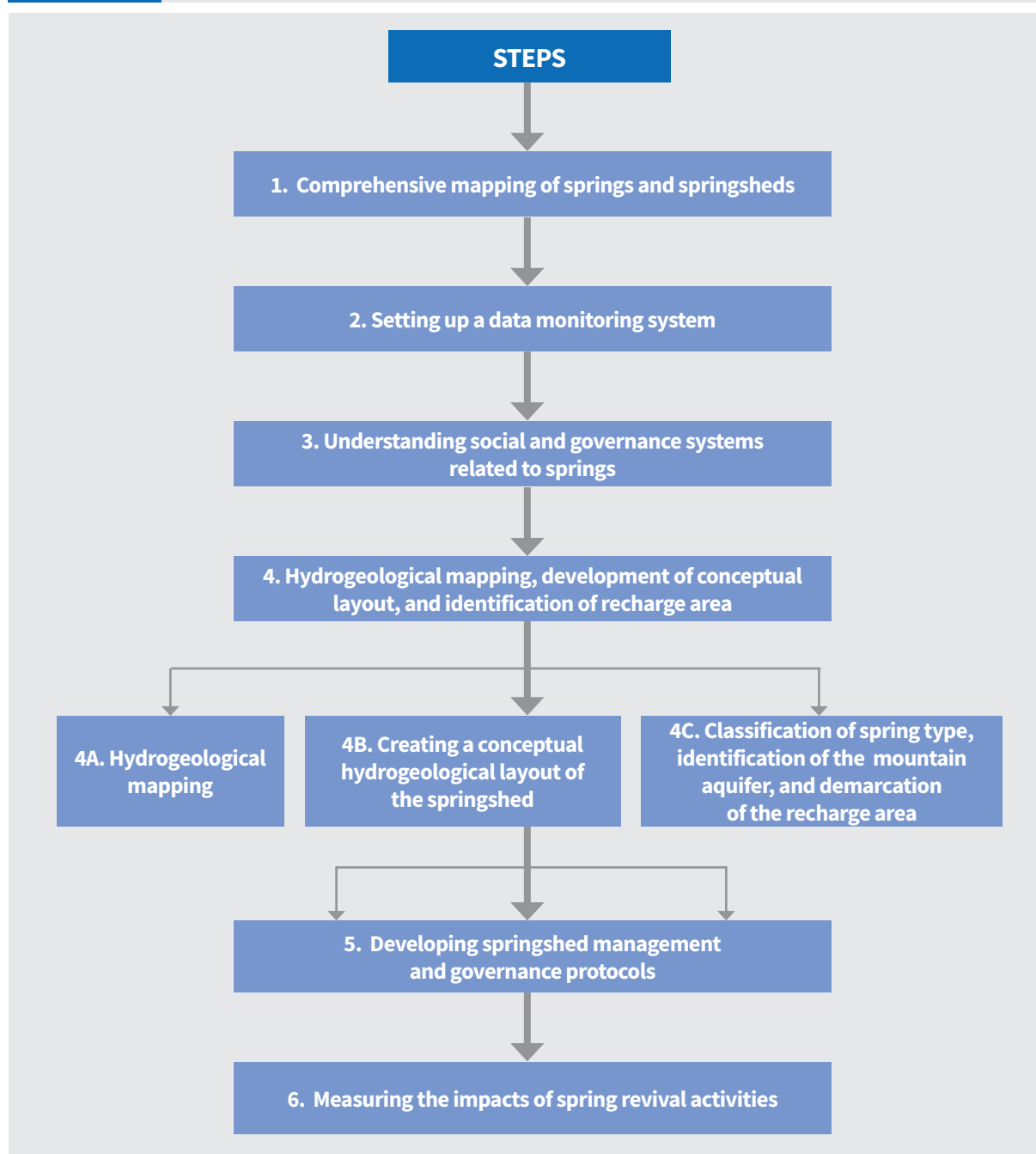
SIX-STEP PROTOCOL FOR SPRING REVIVAL IN THE HKH

In 2018, ICIMOD and ACWADAM developed a six-step protocol for reviving springs in the HKH to address the issue of water stress in the mid-hills and mountains brought on by the drying up of springs across the region.² This protocol

combines science and community knowledge. However, with a pressing need identified to strengthen the GESI aspects of the protocol, ICIMOD has developed this trainer's manual on GESI-responsive springshed management.

FIGURE 1

SIX-STEP PROTOCOL FOR SPRING REVIVAL IN THE HKH



(Source: Shrestha et al., 2018²)

² Shrestha, R.B., Desai, J., Mukherji, A., Dhakal, M., Kulkarni, H., Mahamuni, K., Bhuchar, S. & Bajracharya, S. (2018). Protocol for reviving springs in the Hindu Kush Himalayas: A practitioner's manual. ICIMOD Manual 2018/4. Kathmandu: ICIMOD.

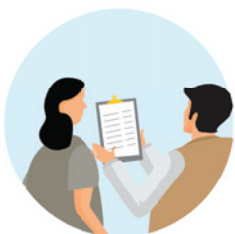


STEP 1

COMPREHENSIVE MAPPING OF SPRINGS AND SPRINGSHEDS

Comprehensive mapping of springs and springsheds begins with defining the study area based on community needs or institutional priorities, followed by collecting secondary data such as topographic and geological maps, census records, and remote sensing outputs to understand land use, settlements, geology, and spring distribution. A reconnaissance survey with local people is then conducted to observe spring patterns, vegetation, socio-economic conditions, and accessibility, which helps plan detailed fieldwork. Spring mapping involves systematically surveying the entire area using Global Positioning System (GPS) to record all water sources and collecting data on discharge, water quality, and preliminary socio-economic information, including household dependency, water use purposes, and any perceived changes or conflicts. Mapping is done on base maps or

digital platforms, and existing datasets may be used where available. A community-led, GESI-responsive citizen science approach can also be applied, where trained Community Resource Persons (CRPs) use digital tools like Survey123 to collect standardised information on source characteristics, seasonality, usage, cultural significance, accessibility, governance structures, and revival measures, with data quality ensured through verification and upload to open platforms like the HKH Springs Decision Support System (DSS). From this full inventory, critical springs are then selected for long-term monitoring using criteria such as declining discharge, water-quality problems, household dependency (especially marginalised groups), cultural value, ecological importance, community management, measurability and accessibility.



STEP 2

SETTING UP A DATA MONITORING SYSTEM

Establishing a long-term data monitoring system to track spring discharge, rainfall, and water quality, is essential for understanding aquifer characteristics and assessing the impact of spring revival interventions. This step involves identifying and training reliable local data collectors, preferably including women and marginalised community members, to record rainfall daily, measure spring discharge at least bi-monthly, and test water quality seasonally. Rainfall is monitored using manual or automated rain gauges installed strategically between recharge zones and spring outlets, while discharge is measured using methods suited to spring type and flow, including bucket-

and-stopwatch, water-level change, water level drop method, stream flow methods and automated flumes with water-level sensors. Ensuring proper installation of rain gauges and the accurate measurement of discharge and water quality improves data reliability. Collected data are recorded and stored in formats like Excel to generate hydrographs and analyse relationships between rainfall, recharge, and spring flow. Regular training, adherence to safety precautions, and systematic documentation of selection criteria, methodologies, and procedures strengthen community-led monitoring and support effective springshed management.

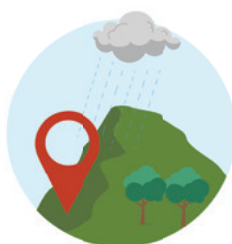


STEP 3

UNDERSTANDING SOCIAL AND GOVERNANCE SYSTEMS RELATED TO SPRINGS

A comprehensive understanding of how springs are used, managed, and governed is crucial for designing effective and sustainable spring revival interventions. By collecting information on water use patterns, community perceptions, and institutional arrangements through Focus Group Discussions (FGDs), Key Informant Interviews (KIIs), and household surveys, this step helps identify which springs are most critical, who depends on them, and what challenges exist in access, equity, and management. Data is gathered at springshed, spring, and household levels

to assess water sources, quality and quantity changes, land-use dynamics, management practices, and conflict resolution mechanisms. FGDs are conducted with mixed groups, women, and marginalised groups across both spring user and recharge areas, while KIIs capture spring-specific governance details, and household surveys provide quantitative socio-economic and water-use data. The outputs support prioritising springs for revival, designing equitable governance systems, and establishing baselines for impact assessment.



STEP 4

HYDROGEOLOGICAL MAPPING, DEVELOPMENT OF CONCEPTUAL LAYOUT, AND IDENTIFICATION OF RECHARGE AREA

Hydrogeological mapping, conceptual layout development, and recharge area identification are essential for understanding groundwater flow, locating aquifers and springs, and guiding effective spring revival and sustainable springshed management. It begins with detailed field mapping of rocks, structures, streams, and springs, recording strike, dip, lithology, and land-use data, which are compiled using tools like Excel, Google Earth, and QGIS/ArcGIS Pro to produce geological maps. These maps are then used to create 2-D cross sections and 3-D conceptual hydrogeological layouts that show

spring locations, aquifers, and fractures, aiding in the identification of recharge area. Recharge areas are delineated by tracing water flow paths from springs to their source, considering land cover and ownership, and visualised on geological maps and Google Earth. These outputs form the technical basis for planning recharge interventions and developing management protocols that link physical, socio-economic, and community perspectives for springshed management.

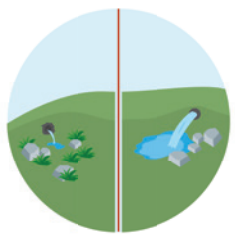


STEP 5

DEVELOPING SPRINGSHED MANAGEMENT AND GOVERNANCE PROTOCOLS

This step focuses on developing context-specific management and governance protocols that combine physical, biological, social, and governance measures to enhance spring recharge and ensure long-term sustainability. Interventions are designed based on local geology, land use, slope, and community needs, and can include ponds, trenches, terraces, bunds, check dams, tree plantations, hedgerows, palisades, brush layering, agronomic practices, and protection of wetlands or traditional water-harvesting structures. Social measures emphasise inclusive governance, engaging women, youth, Indigenous,

and marginalised groups in decision-making, labor contribution, and leadership roles, while promoting awareness, capacity building, and equitable benefit-sharing. Governance protocols include forming water user groups with rules, community funds, regular monitoring of discharge and water quality, conflict resolution mechanisms, and adaptive management practices. Overall, the step ensures integrated, adaptive, and GESI-responsive springshed management through participatory planning, technical interventions, and ecosystem-based solutions.



STEP 6

MEASURING THE IMPACTS OF SPRING REVIVAL ACTIVITIES

The impact of spring revival activities is observed across hydrological, socio-economic, and governance dimensions, including improved spring discharge and water quality, equitable and efficient water supply, and better demand management through community norms, technical interventions, and conservation practices. Measuring these impacts involves setting up long-term hydrological monitoring systems to compare pre- and post-intervention data and repeat socio-economic surveys to

assess changes in access and livelihoods. A comprehensive impact assessment framework treats spring revival as a nature-based solution, evaluating water security, spatial coverage, economic viability, biodiversity gains, inclusive governance, trade-offs, adaptive management, and policy integration, while identifying co-benefits, investment needs, and pathways for mainstreaming into local governance and development planning.

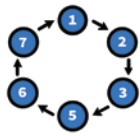
A photograph of a man and a woman in a field of tall grass. The man is in the foreground, wearing a blue and white checkered turban and a light blue shirt, holding a large bundle of harvested grass and a sickle. The woman is in the background, wearing a blue sari, also holding a bundle of grass. The entire image is overlaid with a semi-transparent blue filter.

MODULE 2

Introduction to Gender Equality and Social Inclusion

SESSION 1

Establishing a common understanding of GESI

	Session objective - Provide basic explanations about GESI - Review and reflect on GESI issues
	Session duration - 2 hours
	Methodology - PPT presentation - Reflection - Brainstorming - Group exercise
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens - Copies of concepts
	Activity process - The facilitator conducts a group exercise (Activity 1), forming five groups, followed by discussion - The facilitator displays the PPT presentation on the basic concepts and terminologies of GESI - At the end of the PPT presentation, the floor is opened for discussions and for clarifications of concepts - Referring to the trainer's manual, the facilitator ensures that the session is interactive
	Handouts - Copies of concepts, definitions, and implications

ACTIVITY 1 | GROUP EXERCISE (30 min)

MATCH THE CONCEPT WITH THE DEFINITION

- Divide the participants into five groups.
- Provide each group with a separate set of copies of ‘concepts, definitions, and implications’ (Table 1).
- Request the participants to read them, reflect on them, and then match the correct answers and present them in the plenary.

The groups will be given 15 minutes to discuss and match the cards. This will be followed by an open-floor discussion of 15 minutes.

TABLE 1 CONCEPTS, DEFINITIONS, AND IMPLICATIONS

Concept	Definition	Therefore: Springshed management implications
Gender	Socially constructed norms, roles, and responsibilities assigned to men and women at a given point of time.	Gender dynamics are at the heart of the way in which society determines the different roles and responsibilities of men and women, especially vis-à-vis water for daily household needs.
Gender equality	There should be no discrimination on grounds of a person’s sex, gender, caste, class, age, sexual orientation, bodily abilities, religion, or geographical location. Equality must be measured in terms of equal rights, roles, and responsibilities as well as equal participation in decision-making and leadership.	Access to and control over water resources should be equal, irrespective of one’s sex, gender, caste, class, age, sexual orientation, bodily abilities, religion, or geographical location.
Gender equity	Fair treatment of men and women according to their respective needs	Special efforts and measures are required to ensure the rights of men, women, persons with disabilities, and other disadvantaged groups, including those belonging to different socio-economic backgrounds, in terms of access to and control of water and spring resources.
Social inclusion	It is the process by which efforts are made to ensure equal opportunities so that everyone, regardless of their background, can achieve their full potential in life.	All should have equal access to springs, regardless of their socio-economic background.
Empowerment	People taking control over their lives, setting their own agenda, gaining skills, solving problems, and developing self-reliance.	Empowering women and girls are key to making them gain equal right and access to water resources.
GESI integration	It is the process of assessing the implications of any action, including legislative policies, for girls, boys, women, and men.	GESI integration is a basic element of good springshed management.
GESI analysis	A close examination of a problem or situation in order to identify issues related to sex, gender, caste, class, ethnicity, sexual orientation, disability, religion, language, and geographical location so that these issues can be addressed in all aspects of a programme.	No springshed management programme can be effective when it is not founded on a solid GESI analysis.

ACTIVITY 2 | PRESENTATION (45 min)

FIGURE 2

EQUALITY VERSUS EQUITY



In the first image, it is assumed that everyone will benefit from the same support. They are being treated equally.



In the second image, individuals are given different supports to make it possible for them to have equal access to the game. They are being treated equitably.



In the third image, all three can see the game without any support or accommodation because the cause of the inequity was addressed. The systemic barrier has been removed.

Source: Canadian City for All Women Initiative

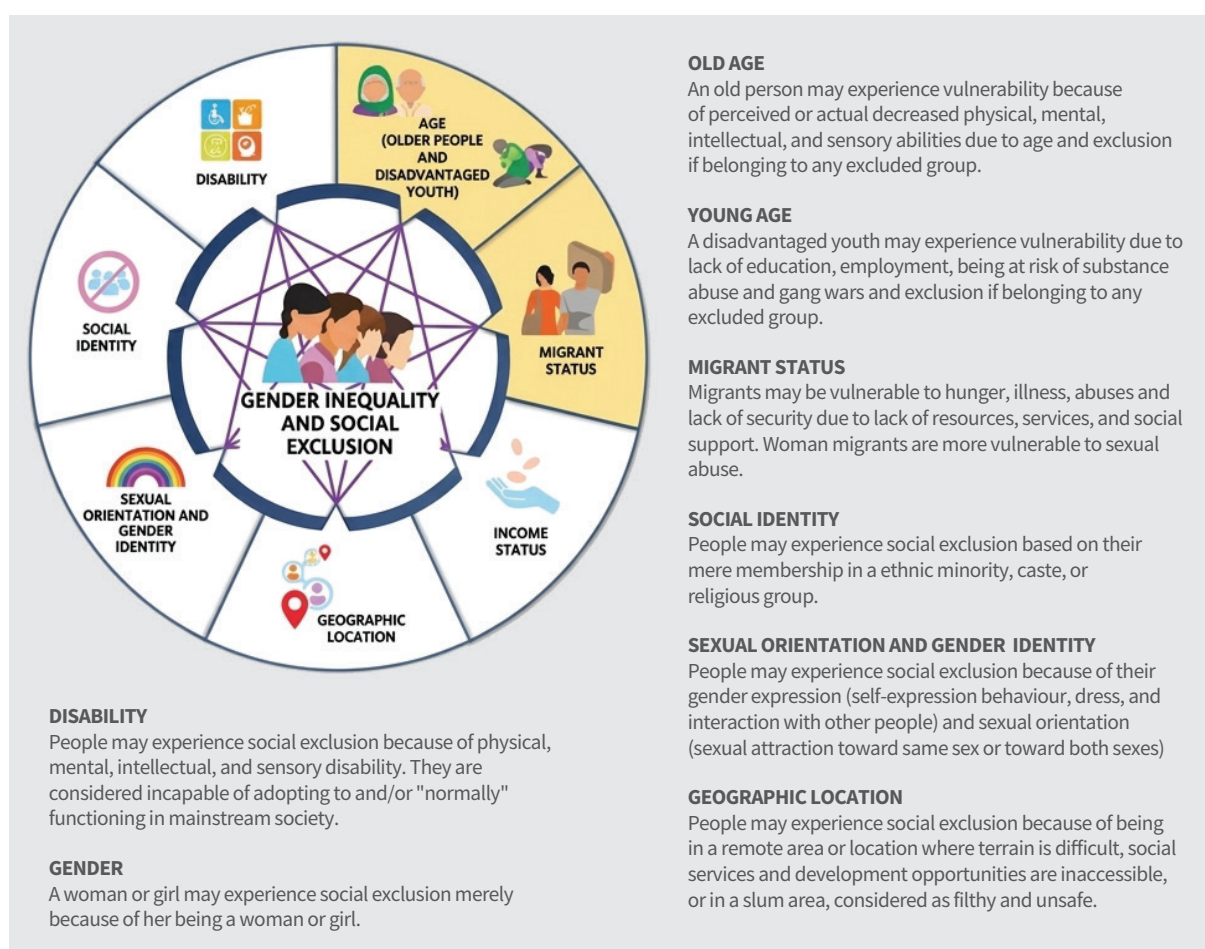
Gender equity: The concept of gender equity refers to ‘fairness of treatment for women and men, according to their respective needs’. It is a strategy to ‘give more to those who have less’ by adopting measures such as affirmative actions for the benefit of individuals or groups. In other words, to achieve equality between and among various categories of people, applying the same standards does not translate into equality as all

individuals do not start out on a similar footing in life – some may be privileged, while some others may be disadvantaged. While equality is the outcome, equity refers to the processes to achieve this outcome, which require different approaches for different groups to respond to their different needs, interests, capacities, socio-economic status, and circumstances.³

³ Mott, J.; Brown, H.; Kilsby, D.; Eller, E. and Choden, T. (2021). Gender Equality and Social Inclusion Self-Assessment Tool, Water for Women Fund and Sanitation Learning Hub, DOI: 10.19088/SLH.2021.016

FIGURE 3

DIMENSIONS OF INEQUALITY, EXCLUSION, VULNERABILITY, AND THEIR INTERSECTIONALITY



Source: Asian Development Bank (2023)⁴

Gender equality: It is the concept that all women and men, girls and boys, irrespective of their sex, gender, caste, class, age, sexual orientation, bodily abilities, religion, or geographical location, have equal rights, roles, and responsibilities. Gender equality is, therefore, the equal valuing by society of the similarities and differences between men and women, and the roles they play. It is based on women and men being equal partners in the home, community, and society. Equality does not mean that women and men will become the same, but that women's and men's rights, roles, responsibilities, and opportunities

will not depend on whether they are born male or female. Gender equality implies that the interests, needs, and priorities of both women and men and girls and boys are taken into consideration, recognising the diversity of different groups, and that all human beings are free to develop their own personal abilities and make choices without the limitations set by stereotypes and prejudices about gender roles. Gender equality is a matter of human rights and is considered a precondition for and an indicator of sustainable people-centred development.⁵

⁴ Asian Development Bank. (2023). Framework for Integrating Gender Equality and Social Inclusion in the Asian Development Bank's South Asia Operations. Manila, Philippines: ADB. Retrieved from <https://www.adb.org/publications/framework-gender-equality-social-inclusion-adb-south-asia-operations>

⁵ European Institute for Gender Equality. Retrieved from <https://eige.europa.eu/gender-mainstreaming/glossary>

Social inclusion: This is a term that can be used to describe a series of positive actions to achieve equality of access to and control over resources, goods, services, and opportunities in order to assist all individuals to participate in community and society activities equally; this will encourage all persons to contribute to social and cultural life and make them aware of and be in a position to challenge all forms of discrimination,⁶ irrespective of their caste, class, ethnicity, sexual orientation, disability, religion, age, location, language, and socio-economic and educational conditions. This requires recognising the dignity, diversity, and autonomy of all people, and accepting their worth and rights to access life opportunities equally. Therefore, social inclusion involves identifying and removing the barriers that prevent full and effective participation in society and seeks to address the historical disadvantages experienced by specific groups. For example, disability inclusion addresses the multiple barriers faced by people with disabilities, such as in terms of attitudes, systems, and physical constraints.⁷

Key components of inclusion

Equal opportunity: This is about ensuring that everyone has equal access to opportunities in the form of education, employment, healthcare, and social services regardless of factors like race, gender, disability, age, socio-economic status, or sexual orientation. For example, in India, disadvantaged groups such as Dalits, and in Nepal, ethnic minorities like the Madhesis, often face economic exclusion owing to the hierarchical nature of society. They may lack access to formal employment opportunities, face discrimination in the labour market, and may have limited access to credit and financial services, thus perpetuating cycles of poverty.

Non-discrimination: This involves promoting policies and practices that prohibit discrimination and prejudice based on any characteristic or identity and fostering a culture of respect and

acceptance of diversity. Deep-rooted social hierarchies and discriminatory practices persist in HKH societies. In India, the caste system leads to the social exclusion of Dalits, who face discrimination in various spheres of life, including access to public spaces, inter-caste marriages, and religious practices. Similarly, in Nepal, the hierarchical caste system marginalises certain ethnic groups, thus affecting their social status and access to opportunities.

Participation: This means encouraging the active involvement and engagement of all individuals in community activities, decision-making processes, and social interactions, thereby allowing all to have a voice and influence in matters that affect their lives.

Empowerment: ‘Power’ is embedded in the word ‘empowerment’. Providing support and resources to individuals to build their confidence, skills, and capabilities enables them to overcome barriers and take control of their own lives. This also involves awareness-raising, expansion of choices, increased access to and control over resources, and actions to transform the structures and institutions which reinforce and perpetuate gender inequality, discrimination, social exclusion, and general inequality. Women’s empowerment is considered a prerequisite for achieving gender equality, which is distinct yet integral to the broader goal of overall equality. At its core, empowerment lies in the capacity of women and other disadvantaged groups to control their own destinies.

Social cohesion: This entails fostering a sense of belonging and solidarity among all members of society and promoting understanding, cooperation, and mutual respect across different groups and communities. Women and girls across all countries in the HKH region face systemic discrimination and exclusion in various aspects of life, including access to education, healthcare, employment, and decision-making processes. In rural areas particularly, women may face additional barriers due to traditional gender roles and cultural norms.

⁶ United Nations Department of Economic and Social Affairs (UN DESA). (n.d.). Social inclusion. Division for Inclusive Social Development. Retrieved from <https://social.desa.un.org/issues/social-inclusion>

⁷ Mott, J.; Brown, H.; Kilsby, D.; Eller, E. and Choden, T. (2021) Gender Equality and Social Inclusion Self-Assessment Tool, Water for Women Fund and Sanitation Learning Hub, DOI: 10.19088/SLH.2021.016

Access and control over resources: This refers to the ability of individuals or groups to obtain and manage various types of assets, such as land, water, forests, and financial capital. Access and control are crucial determinants of socio-economic well-being and opportunities for development. For instance, control over water resources, including rivers, lakes, and groundwater, is vital for agriculture, industry, and domestic use. But access to water can vary based on factors such as caste, geographic location, socio-economic status, and political influence. In some regions, conflicts arise over water rights, particularly in areas facing water scarcity or competing demands.

Accomplishing social inclusion requires a complete and comprehensive approach that includes joint efforts of government departments, societal associations, various networks, and the people at large. This frequently also includes executing arrangements and projects that address primary disparities and structural inequalities, promote diversity and inclusion, and support disadvantaged groups to take part in societal activities. By advancing social inclusion, social orders can turn out to be more impartial and can facilitate the achievement of the goal of gender equality.

GESI integration

GESI integration is a strategic approach to advancing gender equality. It combines theoretical principles with their application in policy and practice. The focus on mainstream systems stems from the understanding that dominant ideas and institutional practices shape decision-making, determine who benefits from resources and opportunities, and influence how societal resources are allocated and justified. Therefore, integrating GESI right from the start in all systems, procedures, and processes and at every stage of development interventions from policy/law and plan development to programme/project conceptualisation and implementation is critical.

GESI-integration principles: Upholding the principles of equity, inclusion, dignity, respect, and worth of all is fundamental to achieving the SDG principle of 'leaving no one behind'. This ensures accountability of all the relevant actors –

top leaders at both central and local levels; civil society; partners in development; the private sector; media; stakeholders; and beneficiaries.

GESI integration approaches

Rights-based approach: A rights-based approach is a conceptual framework which ensures that all people are treated equally in law and practice and that there are no double standards meted out to people based on their sex, gender, caste, creed, or any other socio-economic status.

Intersectionality approach: Intersectionality is an analytic framework that examines how interlocking systems of power, such as caste, class, race, ethnicity, and religion can produce vectors of privilege and oppression; this approach sees to it that 'malestreaming' (dominant ideas of dominant groups) in systems, practices, and development plans is not perpetuated.

Transformative approach: This looks at the unequal power relations that produce the inequity and exclusion experienced by women and other disadvantaged groups. Since all forms of inequality are mutually reinforcing, they must be analysed and addressed simultaneously to prevent one form of inequality from reinforcing another. This requires examining laws/policies and the institutional, religious, and cultural practices that perpetuate discrimination and inequality.

GESI analysis: It is the cornerstone of GESI integration. GESI analysis examines the extent and nature of gender inequity and social exclusion, and identifies GESI gaps in any planned action, including legislation, policies, and programmes in all areas and at all levels by addressing both practical GESI needs and strategic GESI interests. By avoiding stereotyping and generalisations, it seeks to understand the GESI differential impacts on women and men belonging to different categories, as well as which specific women and which specific men are affected within a thematic area; this is done by identifying institutional, socio-economic, and cultural barriers, and addressing them through targeted interventions.

TABLE 2

GESI INTEGRATION CONTINUUM FRAMEWORK⁸

GESI-unaware	• Does not consider any gender or social inclusion dimensions, for example, gender norms, roles, and relations, and how they affect access to and control over resources. • No gender or social inclusion analysis is conducted. • Relevant data is not disaggregated by gender or social group.
GESI-aware	• Recognises gender and social roles/relations and is aware of their effects and social (in) equality • Relevant data is normally disaggregated by gender and social groups. • Works within existing social structures (e.g., supports marginalised groups without challenging systemic inequalities or gender roles). • Does not directly address inequalities stemming from or generated by unequal gender and social norms, roles, or relations
GESI-responsive	• Actively addresses gender and social inequalities. • Considers how gender and social norms, roles, and relations affect access and control over resources. • Data is disaggregated by gender and social group and used for decision-making. • Aims to transform inequitable gender norms, roles and relations (e.g., amplifying marginalised voices, legal/institutional reforms). • Focuses on the equitable gendered and social distribution of benefits, resources, and status. • Does not necessarily address the root causes of gender and social inequalities.
GESI-transformative	• Considers gender and social norms, roles, and relations, and how these affect access to and control over resources. • Conducts in-depth gender and social inclusion analysis. • Uses disaggregated data for decision-making. • Contributes to changes in gender and social norms, discriminatory cultural values, practices, and power structures. • Addresses the roots of gender and social inequalities and discrimination. • Goes beyond equitable distribution to challenge and change underlying social norms and broader structural changes.

⁸ ICIMOD. (2026). Participants' manual: Enhancing capacity on gender equality and social inclusion at ICIMOD. International Centre for Integrated Mountain Development. p. 22. <https://10.53055/ICIMOD.1128>

ACTIVITY 3 | INDIVIDUAL EXERCISE (45 min)

MY LIFE JOURNEY

This session aims to deepen the understanding of one's lived experiences through a GESI perspective. The facilitator will request the participants to individually translate their life journey from birth to the present time in pictorial forms from a GESI perspective.

ACTIVITY PROCESS:

- Distribute flipcharts and marker pens or crayons of different colours to each table
- The facilitator will request the participants to individually translate their life journey from birth to the present time in pictorial forms from a GESI perspective
- Participants will reflect on their life journey and present their stories

REQUEST THE PARTICIPANTS TO:

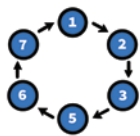
- Using pictorial forms to draw their life journey from the time of their birth to their present (30 minutes)
- Start from the bottom right of the flip chart
- In the middle of the left-hand side of the flip chart, they should draw dreams that they had as a child

- In each stage of their lives, they should highlight a significant event related to their gender – it can be either positive or negative, which made them realise how their gender identities may have influenced and shaped who they are and why
- Coming to their present stage, they should refer to their dream and see if it has been fulfilled or not
- They should then reflect on how and why their dream has been fulfilled or not
- Identifying gendered influence: Participants should identify key points in their lives with significant gendered experiences like gender socialisation, discrimination, exclusion or privilege based on gender and identity development

When the participants are ready after 30 minutes, invite some of them to share their life journey by dwelling on the insights gained from the activity and request them to consider how they can apply this understanding to promote gender equality through social change.

SESSION 2

Gendered behaviours and consequences

	Session objective - Provide a basic explanation about gendered behaviours and consequences - Reflect on learned gender behaviours and social exclusion
	Session duration - 2 hours
	Methodology - PPT presentation - Reflection - Brainstorming - Group work exercise
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens
	Activity process - The facilitator will narrate the story of the frogs and start a plenary discussion, and note on the flip chart the views expressed by the participants about being female and male. - The facilitator will display the PPT presentation on gender concepts and initiate discussions. - The participants will be requested to engage in role-play based on the scenarios provided. - Referring to the trainer's manual, the facilitator will ensure that the session is interactive.
	Handouts - Copies of the role-play scenarios

ACTIVITY 1 | PLENARY EXERCISE (30 min)

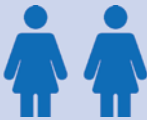
Narrate the following story:⁹ Two frogs were sleeping on a bed. Suddenly, a loud noise woke them up. One frog hid under the bed. The other picked up a stick and ran towards the door.

Ask the participants to identify which one of the two frogs is male and which one female. Ask them to substantiate their choice with concrete examples of associative qualities assigned to men and women and how that influenced their decision.

Encourage the participants to come up with all the qualities they associate with men and women. And ask them why they associate so. In the plenary, explore together the concept of gender stereotyping. Analyse what consequences such stereotypes have in the way we behave and the relations we have with others around us. Challenge these stereotypes. At the same time, start a discussion on what makes these stereotypes influence our lives, guiding our behaviour and reactions.

Make two separate lists of female and male qualities and write down the views expressed by the participants on the flip chart.

Examples of qualities associated with men and women

 - Adventurous - Aggressive - Strong - Rough - Impatient - Rational - Intelligent - Self-centred/Egoistic - Authoritative - Tough	 - Weak - Shy - Gentle - Dependent - Tolerant - Sensitive - Jealous - Caring - Forgiving - Emotional
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The group can look at the list and decide which of these qualities they think women and men are born with. Keep cancelling the qualities that the group feels have been acquired while growing up and link the discussion to the socialisation process.

To conclude the exercise, tell the participants that no one can exactly infer which frog is female and which one is male. The frog that ran to the door with a stick could be either male or female. However, during socialisation, one has learnt to associate 'aggression', 'bravery', and 'strength' with being male. One tends to think of females as weak and submissive, as those who are not capable of handling tough situations. These values, imbibed through socialisation, are so strongly embedded in the minds of the people that these affect all aspects of their lives (personality, attitudes, self-identity, roles, responsibilities, and behaviour). These qualities, ascribed to men and women, are used as a basis for justifying discrimination between the two. Understanding that these qualities, which are thought to be 'natural', are social constructions, and therefore changeable, is important for the creation of an equitable society.

⁹ CARE. (2014). Gender Equity and Diversity Training Manual.

ACTIVITY 2 | PRESENTATION (45 min)

Gender is socially constructed qualities or characteristics, roles and responsibilities, resource access and control that society ascribes to each sex, which is biological. Gender is generally associated with unequal power and access to choices and resources.

Gender relations refer to the specific subset of social relations uniting men and women as social groups in a particular community. Gender relations intersect with all other influences on social relations, such as age, ethnicity, race, and religion, to determine the position and identity of people in a social group. Since gender relations are a social construct, they can be changed.¹⁰

Persons with diverse sexual orientation, gender identity and expression and sex characteristics (SOGIESC)¹¹ is an umbrella term for sexual and gender diversified - groups of people whose sexual orientation, gender identity or sexual characteristics are different from the presumed majority of the population (male or female heterosexuals). Persons with diverse SOGIESC include lesbian, gay, bisexual, transgender and intersex, queer and/or questioning, and asexual persons (LGBTIQA). As the groups and individuals identifying as persons with diverse SOGIESC are evolving, lesbian, gay, bisexual, transgender and intersex plus (LGBTI+) is often used as an umbrella term covering sexual orientation and gender identity. Lesbian, gay, and bisexuals (LGB) are those whose sexual orientation is different from the presumed majority (heterosexuals). Transgender (T) covers gender identity such as trans-women and trans-men (those identifying differently from the sex assigned at birth). Intersex (I) are those whose genitals and sexual organs are not clearly female or male (a rights-based approach is to allow the person to decide what s/he wants to be before any surgery is done). Questioning (Q) stands for people who are still questioning their gender or sexual identity.

Feminism is about all genders having equal rights and opportunities. It is about respecting diverse women's experiences, identities, knowledge and strengths, and about striving to empower all women to realise their full rights. It is about levelling the playing field between genders and ensuring that diverse women and girls have the same opportunities in life as boys and men.¹²

Masculinity relates to perceived notions and ideals about how men are expected to behave in a given setting. From very early on, boys get messages about what it means to be a boy. Over time, boys and men learn 'appropriate' gender roles according to society's expectations. The concept of masculinities thus highlights the pressures men and boys may experience to adhere to specific versions of manhood – particularly the widespread belief that being a man means being a provider or having stable employment – or the beliefs that men need sex more than women, that men should dominate women, and that men should not do domestic tasks.¹³

Intersectionality refers to the interaction between gender, ethnicity, and other identity categories of difference in individual lives, social practices, institutional arrangements, and cultural ideologies, and the outcomes of these interactions in terms of power dynamics.¹⁴

GENDER STEREOTYPES

This is about ascribing certain attributes, characteristics, and roles to people based on their gender. Gender stereotypes can be negative (i.e., women are bad drivers; men can't change diapers) and benign (i.e., women are better caregivers; men are stronger). Such stereotyping becomes harmful when it limits a person's life choices, such as in terms of choosing a profession. Compounded gender stereotypes occur when layered with stereotypes about other characteristics of a person, such as disability, ethnicity, or social status.

¹⁰ Christodoulou, J., & Zobnina, A. (2009). Glossary of Gender-related Terms. Mediterranean Institute of Gender Studies (MIGS).

¹¹ IOM UN Migration. (n.d.). SOGIESC Glossary of terms. Retrieved from <https://www.unhcr.org/sites/default/files/legacy-pdf/6163eb9c4.pdf>

¹² International Women's Development Agency. (n.d.). What is feminism? Retrieved from <https://iwda.org.au/learn/what-is-feminism/>

¹³ Spence, J. T. (1985). Concepts of Masculinity and Femininity. *Psychology and Gender*, 32, 59.

¹⁴ K. Davis. (2008). Intersectionality as Buzzword: A Sociology of Science Perspective on What Makes a Feminist Theory Successful. London. Retrieved from http://kathydavis.info/articles/Intersectionality_as_buzzword.pdf

UNCONSCIOUS GENDER BIAS

Unconscious gender bias is our automatic mental associations based on gender which are unconsciously acquired from our traditions, norms, values, cultures, and experiences. This affects decision-making and leads to roles being assigned based merely on gender.¹⁵

Some examples are:¹⁶

- **Affinity bias:** Also referred to as “similarity bias” which involves the tendency to favor or prefer individuals with similar backgrounds, interests, or experiences.
- **Perception bias:** Judgments based on stereotypes and generalised assumptions about particular groups.
- **Halo effect:** Tendency to attribute overall positive qualities to an individual based on limited information and interaction.
- **Confirmation bias:** Unintentional tendency to process information selectively in ways that reinforce pre-existing beliefs, opinions and ideas.
- **Gender bias:** Preference for one gender over another

Stereotyping: This is about assuming that individuals of a certain gender possess specific traits and abilities, such as the belief that women are more nurturing or emotional, while men are more logical or assertive.

Double standards: This is about applying different criteria or yardsticks to individuals depending on their gender, such as praising the assertiveness of men, while labelling the same behaviour in women as aggressive.

Tokenism: This is about treating individuals as representatives of their gender rather than as individuals with unique qualities and experiences, thus leading to appointments not based on a person's interests or abilities but based on the person's gender.

Gendered division of labour: Gendered division of labour refers to different labour roles being allocated to women and men. Three areas of labour are distinguished.

- **Reproductive roles:** These roles involve childbearing, and care services within households that support a household's wellbeing such as cooking, cleaning, fetching water, washing, and attending to the sick and elderly. These responsibilities are performed primarily by women and children and have low value.
- **Productive roles:** These roles are related to activities that produce goods and services for consumption or trade (growing crops for sale or household consumption). Both women and men can be involved in these activities. However, women often carry out these roles alongside their reproductive roles in a household farm or home garden, which makes their contributions less visible and less valued than men's productive work.
- **Community roles:** These roles involve community work, such as holding social events, activities to improve or care for community resources (land or irrigation ditches), and/or participating in groups or farmer organisations. These activities are often voluntary. Men tend to participate more often in the political affairs of the community (e.g. serving as chair of the farmers' association), whereas women tend to contribute their time more for free for a social good (e.g. cleaning the school backyard).¹⁷

¹⁵ UN Conference on Trade and Development. (2021). Overcoming unconscious gender bias. United Nations Conference on Trade and Development. Retrieved from <https://unctad.org/news/overcoming-unconscious-gender-bias>

¹⁶ Suveren, Y. (2022). Unconscious bias: Definition and significance. *Psikiyatride Guncel Yaklasimlar*, 14(3), 414-426.

¹⁷ Moser, C. O. (2012). *Gender planning and development: theory, practice and training*. Routledge.

ACTIVITY 3 | GROUP EXERCISE – ROLE PLAY (50 min)

Divide the participants into five groups with five participants in each group or according to the number of participants. Each group will be given one scenario card with a picture to prepare a role play/skit as shown in the picture. Inform the participants that they can be creative in delivering the scenario depicted in the picture and that all the group members have to participate in the role play. Each group will be given 15 minutes' preparation time and five minutes for presentation.

Once all the groups have completed the role play, start a ten-minute plenary discussion. The plenary will discuss the messages of the scenario, how that impacts GESI issues and what can be done to reduce unconscious gender bias:

1. Recognise that biases exist, know that well and read about them.
2. Think critically and look at it from different directions and facets like a diamond and not like a coin.
3. Challenge assumptions and traditions and take a contrary view.

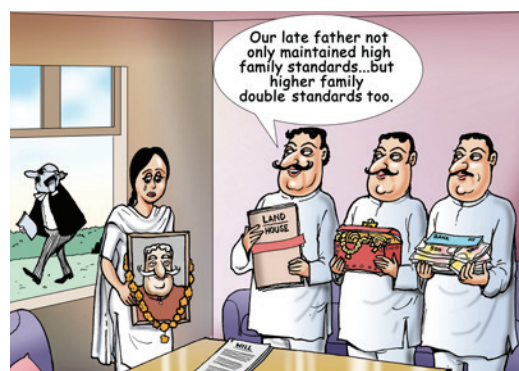
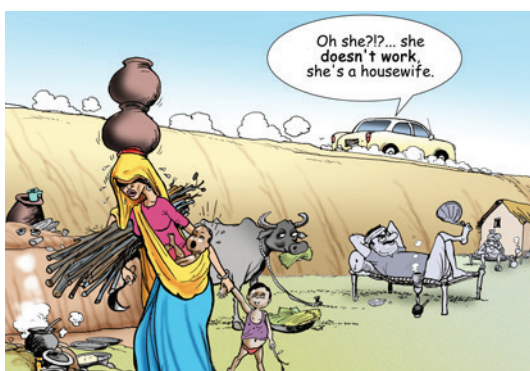
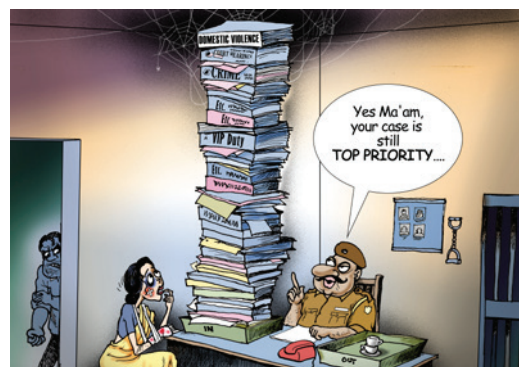
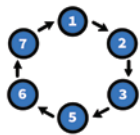


Image credits: (clockwise from top left): Image 1 © UNICEF/B. Mommen; images 2-4 © UN Women/Neelabh Banerjee; image 5 © Barry Deutsch

SESSION 3

Water and gender equality

	Session objective - To gain an understanding about water as a rights issue which is central to achieving gender equality
	Session duration - 30 minutes
	Methodology - PPT presentation
	Materials required - Laptop - Projector - Screen - Video titled 'water and gender equality'
	Activity process - The facilitator makes a PPT presentation on water as an equality issue and project the video. - Referring to the trainer's manual, the facilitator will make a presentation and encourage the participants to express their views
	Handouts

ACTIVITY 1 | PRESENTATION (30 min)

WATER AS AN EQUALITY ISSUE

Water is not just a basic need but a fundamental human right and a critical gender equality issue. In 2010, the United Nations (UN) recognised access to safe and clean drinking water and sanitation as ‘the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights. This was reinforced in Sustainable Development Goals (SDG) 6, which aims for sustainable water and sanitation for all by 2030. However, legal and policy frameworks often fail to address the gendered barriers that affect access, especially for women and girls in remote and marginalised communities.

Despite global commitments, governments have not prioritised water access equitably. In mountainous regions, piped supply is still lacking due to difficult terrain and neglect. Implementation of water policies remains weak. In such areas, women rely on seasonal springs for household and agricultural needs. They bear the burden of fetching water, often walking long distances, braving harsh weather, and sacrificing their health. This unpaid care work is invisible, yet it sustains households and subsidises public services, amounting to a systemic “time tax” on women and girls.

Globally, 1.8 billion¹⁸ people lack on-premises water, and in 70% of such households, women and girls are the main water collectors. According to the United Nations Children's Fund,¹⁹ women and girls spend around 200 million hours each day collecting water, time that could otherwise

be used for education, income-generation, or rest. Inadequate Water, Sanitation, and Hygiene (WASH) access increases health risks, restricts menstrual hygiene management, exposes women to violence, and can even lead to miscarriages due to physical strain. Girls also miss school, reinforcing cycles of inequality.

In response to the growing crisis, the feminist approach highlights the interconnectedness of social justice, ecological rights, and women's rights and promotes a ‘Rights of Nature’ approach that values ecological balance, reciprocity, and collective stewardship²⁰. They call for gender-transformative solutions that centre the lived experiences of women particularly those from marginalised groups – and highlight the interconnection between SDG 5 (Gender Equality) and SDG 6 (Water and Sanitation). Without progress on one, the other remains out of reach.

Video screening: Show the ‘[video water and gender equality](#)’.

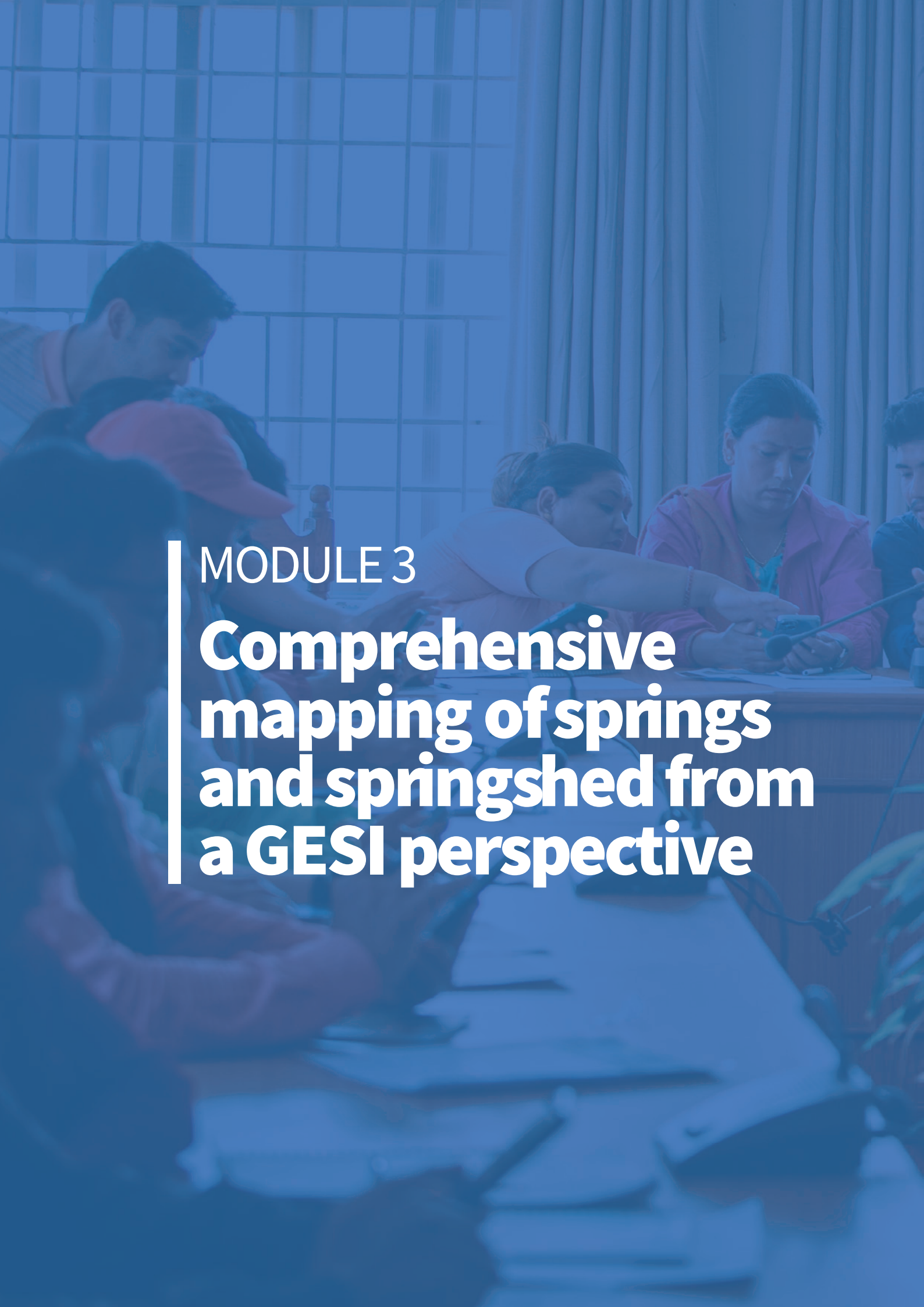
At the end of the screening, initiate a discussion on gender equality and water by asking the following questions:

1. How does the intersection of gender and water access impact the socio-economic status of women in different regions?
2. In what ways do the lack of gender-responsive water management policies perpetuate gender stereotypes and hinder women's empowerment?

¹⁸ United Nations Children's Fund (UNICEF) and World Health Organization (WHO). (2023). Progress on household drinking water, sanitation and hygiene 2000–2022: Special Focus on Gender. Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. New York: UNICEF and WHO, p. 5.

¹⁹ Ibid

²⁰ UN Women and UN Water. (2019). From Commodity to Common Good: A Feminist Agenda to Tackle the World's Water Crisis, p. 2. Retrieved from <https://www.unwomen.org/sites/default/files/2023-07/from-commodity-to-common-good-a-feminist-agenda-to-tackle-the-worlds-water-crisis-en.pdf>

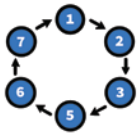
A group of people are gathered around a table in a meeting room. A blue overlay covers the entire image. The text 'MODULE 3' is written in white, bold, sans-serif font. Below it, the title 'Comprehensive mapping of springs and springshed from a GESI perspective' is written in a larger, white, bold, sans-serif font. A vertical white line is positioned to the left of the title text.

MODULE 3

**Comprehensive
mapping of springs
and springshed from
a GESI perspective**

SESSION 1

Significance of springs in the HKH region

	Session objective - Discuss the importance of springs in providing water for drinking, agriculture, and for livelihoods, as well as for sustaining ecosystems in the HKH region - Comprehend the significance of religion and culture vis-à-vis springs in the HKH region
	Session duration - 30 minutes
	Methodology - PPT presentation - Reflection - Discussion
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens - A video
	Activity process - The facilitator will make a PPT presentation on the significance of springs in the HKH region - Referring to the trainer's manual, the facilitator will ensure that the session is interactive - At the end of the PPT presentation, the floor will be opened for discussion and clarifications
	Handouts

ACTIVITY 1 | PRESENTATION (30 min)

ROLE OF SPRINGS IN SUSTAINING HUMAN LIFE

For centuries, springs have been the major source of water for millions of people in the HKH region. They play an important role in the daily lives of thousands of rural and urban communities in the hills and mountains of the HKH, especially in rural areas where access to piped water supply or other centralised systems are limited.²¹ Springs are also central for maintaining the health of ecosystems as they support biodiversity in all its forms. They often serve as primary water sources for drinking, irrigation, and domestic use in rural communities. In states like Uttarakhand, Himachal Pradesh, and Sikkim, springs are lifelines for local populations, providing clean and reliable water throughout the year.²²

Agriculture is the primary source of livelihoods in the HKH region, playing a pivotal role in attaining food and nutrition security. However, a significant portion of the population relies on limited natural resources with a modest carrying capacity. Here, research focusing on rain-fed agriculture and specialised mountain products has been scarce, thereby contributing to persistently low agricultural productivity. Meanwhile, the region faces rapid population growth, approximately 1.4 per cent annually, thus exacerbating the pressure on food and nutrition security.²³ The ongoing rapid climatic changes in the HKH ecosystems are exacerbating the challenges faced by the traditional food and agricultural systems in the region.²⁴

The HKH region's vast glaciers and towering mountain ranges serve as the source for major South Asian rivers. Despite this abundance, the region's water resources are underutilised

because of poorly developed irrigation systems, leading to heavy reliance on rainfall for agriculture. This dependence makes agriculture highly susceptible to weather fluctuations and the impacts of climate change. The natural water sources, such as streams and ponds, which are crucial for mountain agriculture, are diminishing, and rapid changes in the water regime are expected, posing significant threats to the region's agricultural economy and food security. While forests play a critical role in sustaining crop production levels in the HKH region, its traditional forest-dependent communities face growing risks due to population growth and changing land-use patterns, leading to unsustainable agricultural expansion.

In the mid-hills of the HKH region, the primary livelihood strategy involves a dual approach: rain-fed agriculture, typically centred around crops such as maize, wheat, barley, and potatoes for household sustenance, coupled with extensive livestock husbandry. These changes encompass shifts in migration routes and timings, alterations in the management goals for livestock, and adjustments in the interplay between crop farming and animal husbandry practices.²⁵

In Nepal, springs are the main source of water for drinking and other domestic purposes for many rural communities, particularly in its hilly and mountainous regions. The Government of Nepal, along with various non-governmental organisations and development partners, has been working to protect and manage springs through initiatives such as community-based spring conservation and watershed management programmes.²⁶ Importantly, springs in private

²¹ Scott, C.A., Zhang, F., Mukherji, A., Immerzeel, W., Mustafa, D., & Bharati, L. (2019). Water in the Hindu Kush Himalaya. In: Wester, P., Mishra, A., Mukherji, A., & Shrestha, A.B. (eds), *The Hindu Kush Himalaya Assessment*. Cham: Springer. Retrieved from https://doi.org/10.1007/978-3-319-92288-1_8

²² Niti Aayog. (2018). Report of Working Group I – Inventory and revival of springs in the Himalayas for water security. Government of India.

²³ Rasul, G., Saboor, A., Tiwari, P.C., Hussain, A., Ghosh, N., & Chettri, G.B. (2019). Food and nutrition security in the Hindu Kush Himalaya: Unique challenges and niche opportunities. In: Wester, P., Mishra, A., Mukherji, A., & Shrestha, A. (eds), *The Hindu Kush Himalaya Assessment*. Cham: Springer, p. 306. Retrieved from https://doi.org/10.1007/978-3-319-92288-1_9

²⁴ Ibid., p. 307

²⁵ Ibid., p. 428

²⁶ ICIMOD. (2023). Adapting to water scarcity through watershed conservation. Retrieved from <https://www.icimod.org/article/adapting-to-water-scarcity-through-watershed-conservation/>

lands in Nepal have to be registered.²⁷ However, similar to India, springs in Nepal are facing challenges such as depletion due to increasing demand, contamination from agricultural run-off, and human activities; they are also vulnerable to climate change impacts such as erratic rainfall patterns and glacial melting.

In Bhutan too, springs are vital for providing drinking water to rural communities, especially in its remote and mountainous areas where access to centralised water supply systems is limited. The Royal Government of Bhutan has implemented initiatives to protect and manage springs, including community-based conservation efforts and watershed management projects. Clearance for road construction is not given if a spring is located in the construction area. Like its neighbouring countries, Bhutan is also grappling with challenges such as water scarcity, contamination, and environmental degradation, which can affect the availability and quality of spring water.

Despite such efforts and given the importance of springs as the primary source of water for drinking, agriculture, and livelihoods, springshed management is yet to take centre stage in policy development in the HKH. It is also a much-neglected area in the discourse on natural resources conservation that focuses on forests and wetlands. To respond to the growing water crisis in the HKH region, urgent efforts at national and transboundary levels are required so that governments do not fall back upon the innate goodness of women over and over again to do their work of providing basic necessities to their citizens.

RELIGIOUS AND CULTURAL SIGNIFICANCE OF SPRINGS

The HKH region is home to diverse cultures and religions, each with unique beliefs and practices regarding water sources like springs. Across the region, springs are not only vital water sources for drinking, irrigation, and daily needs, but also hold deep religious and cultural significance. They are sites for rituals, ceremonies, and spiritual practices, serving as symbolic links between nature and society.

In India, particularly in the Himalayan states of Uttarakhand, Himachal Pradesh, and Jammu and Kashmir, springs are regarded as sacred and associated with various Hindu deities. Many are believed to be manifestations of goddesses or gods, and communities offer prayers and perform rituals at these sites. In Kumauni culture, for instance, a newlywed bride is taken to a local spring (*naula*), a symbol of both auspiciousness and her future responsibility for water collection.²⁸ Her parents will plant two saplings around the springshed area, and as the saplings grow, they will remember the number of years that have passed since their daughter's marriage; this ritual also contributes greatly to the protection of the spring area.²⁹

In the Pakistani regions of Gilgit-Baltistan and Khyber Pakhtunkhwa, which encompass parts of the HKH, springs are considered sacred in many local cultures. These springs are often associated with Sufi saints and shrines where devotees gather to seek blessings and perform rituals.

In Bhutan, a predominantly Buddhist country, springs hold spiritual significance and are often located near monasteries and religious sites. Due to the belief that goddesses reside in the springs, these sources are protected and revered by local communities. Water from these springs is considered pure and is used for

²⁷ KII with Badri Raj Dhungana, Joint Secretary and Spokesperson, MoFE, Nepal, and Deepa Oli, Gender and Climate Focal Point, MoFE. (13 February 2024).

²⁸ Ravandale, S. (2022). Celebrating the role of hill women in springshed development and governance. South Asia Network on Dams, Rivers and People <https://sandrp.in/2022/03/23/celebrating-hill-women-and-their-role-in-springshed-development-and-governance/>

²⁹ KII with H.P. Uniyal, Professor and Advisor, Swami Rama Himalayan University (SRHU), Dehradun, India; Geeta Kandpal, Gender Expert, SRHU; and Nitesh Kaushik, Deputy Director, Himalayan Institute Hospital Trust, Dehradun. (15 February 2024).

ritualistic purposes, including for offerings and purification ceremonies. Similarly, in Nepal, springs are seen as sites for introspection and meditation by Buddhists and they are frequently associated with spiritual cleansing. In order to emphasise the spiritual significance of springs, many Buddhist monasteries and stupas are situated next to or around them in Nepal. Like in Nepal, menstruating women in Bhutan are not allowed to fetch water from the springs.³⁰ As recently as 14 March 2024, Annapurna Post, one of Nepal's newspapers, reported that in far-western Nepal, menstruating girls and women have been blamed for the drying up of springs; the accusation is that they have invited the wrath of the gods by not observing the untouchability practice of *chhaupadi* during menstruation wherein menstruating woman are isolated in *chhaus*, or huts.³¹

In Nepal, too, water sources are associated with different gods. For instance, Hindus regard the high-altitude Gosaikunda Lake as a holy site since they believe it was formed by Lord Shiva's trident. According to Nepalese legend, certain springs are home to spirits or water deities like the Naag Dev (snake god) and, therefore, must be kept clean at all times, or else, it would invite a curse.³² At these spring sites, people seek blessings from the gods for protection and good fortune.³³ Such cultural beliefs have contributed to the protection of the springs themselves. For example, in Bajhang district, when the municipality of Chabbis Pathibhara constructed a temple near a spring, the villagers stopped the practice of grazing in the area, leading to protection of vegetation.³⁴ Traditionally, in Nepal, springs have also been regarded as a symbol of welfare and well-being for people as they provide drinking water in difficult mountainous terrains where there are no piped water systems or bottled water.³⁵

³⁰ KII with Gup Sangay Lham, Gewog Local Government, Bhutan. (26 February 2024).

³¹ Budha, L. B. (2024). महिलावारीमा कुत्रा पनि लिनेछैन Annapurna Post. <https://annapurnapost.com/story/453838/>

³² KII with Badri Raj Dhungana, Joint Secretary and Spokesperson, Ministry of Forest and Environment (MoFE), Nepal, and Deepa Oli, Gender and Climate Focal Point, MoFE). (13 February 2024).

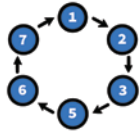
³³ KII with Indira Mulepati, Member, Soil and Water Conservation Society (SOWCOS), Nepal. (24 February 2024).

³⁴ Mainstreaming Spring Revival in HKH: Status of Spring Research, Policy and Practice in Nepal. (2022, p. 24). Nepal Water Conservation Foundation (NWCFF) with support from ICIMOD.

³⁵ KII with Ngamindra Dahal, Chair, NWCFF, Kathmandu. (12 February 2024).

SESSION 2

Environmental challenges impacting springs and gendered implications

	Session objective - To build a deeper understanding of how springs are affected by climate change and how it impacts women's daily lives
	Session duration - 30 minutes
	Methodology - PPT presentation - Video screening
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens
	Activity process - The facilitator makes a PPT presentation titled 'Environmental challenges impacting springs' and then discusses the issues it has raised - At the end of the PPT presentation, the floor will be opened for discussions and clarifications - Referring to the trainer's manual, the facilitator ensures that the session is interactive
	Handouts

ACTIVITY 1 | PRESENTATION (30 min)

ENVIRONMENTAL CHALLENGES IMPACTING SPRINGS AND THE LIVES OF THOSE RESPONSIBLE FOR WATER COLLECTION

Climate change impacts, such as altered precipitation patterns and increased frequency of extreme weather events, are affecting water availability. There have been changes in the timing, intensity, frequency, and distribution of rainfall and snowfall in different regions. Some areas are experiencing increased precipitation, leading to more frequent and intense rainfall events or snowstorms, while others are facing decreased precipitation, resulting in drought conditions. These events can have severe implications for water availability and management. However, in the larger debate and focus on melting glaciers, erratic precipitation, and unpredictable rainfall patterns, springs as perennial or seasonal sources of water have been relatively neglected. This was also evident in the recent Conference of Parties (COP) 28 in Dubai, where the focus was on reducing greenhouse emissions and limiting global warming to 1.5 degrees Celsius³⁶ by cutting down on the dependence on fossil fuels. Some of the exceptions to this neglect are SDG 6 (Clean water and sanitation) and 14 (Life below water), where springs as a sustainable source of water are mentioned.

The HKH is both a climate change hotspot and a densely populated region. Over the years, there has been a change in the trend of precipitation, temperature, and glacier melt which has had a significant impact on the quantity and quality of spring water. It has been observed that in most areas of the HKH region, population and economic growth as well as unplanned urbanisation have increased the demand for natural resources, leading in many instances to their overexploitation. For instance, Land Use and Land Cover Change (LULCC) has reduced forest coverage and grasslands to make way for farmlands that require more water. It has also caused deforestation, shrinkage of wetlands, and urban expansion.³⁷ One of the most adverse impacts of LULCC has been on the recharge areas of springs.³⁸

It is estimated that nearly 50 per cent of the springs in the Indian Himalayan Region (IHR) are drying up, affecting communities whose lives and livelihoods depend on spring water.³⁹ In Nepal, over the past decade, approximately 20 per cent of the springs have dried up and there has been a 50 per cent reduction in their flow.⁴⁰ Overall, in the HKH region, the drying up of springs has affected the lives of around 10 million people who depend on their water for household and individual consumption, and for agriculture.

The cumulative effects of these environmental challenges have been significantly adding to the drudgery of women who are responsible for water collection and use. Traditional gender roles and societal norms often dictate that women are responsible for managing household and unpaid care work. Unpaid care work involves the essential tasks and services carried out within households and communities; these activities include cooking, cleaning, ensuring access to necessary nutrition, childcare, and care of the elderly and including water collection.

The marginalisation of women in the irrigation sector emanates from the gender stereotyped role of women, and therefore, they are not regarded as either stakeholders or as actors in irrigation management. All too often, water management policies have fallen short of addressing the gender-specific needs of women and acknowledging their productive roles. Traditionally, as users and managers of natural resources, women have been able to accumulate rich knowledge and wisdom about the environment, including water sources, but this knowledge is often ignored.

Unpaid care work: Traditional gender roles and societal norms often dictate that women are responsible for managing household and care-giving tasks. These expectations can start from

³⁶ Global Witness. (2025). Everything you need to know about COP. <https://www.globalwitness.org/en/blog/everything-you-need-know-about-cop>

³⁷ Wester, P., Mishra, A., Mukherji, A., & Shrestha, A.B. (2019). The Hindu Kush Himalaya Assessment: Mountains, Climate Change, Sustainability and People. ICIMOD, p. 22.

³⁸ Panwar, S. (2020). Vulnerability of Himalayan springs to climate change and anthropogenic impact: a review. J. Mt. Sci. 17, 117–132. <https://doi.org/10.1007/s11629-018-5308-4>

³⁹ NITI Aayog. (2018). Report of Working Group I – Inventory and revival of springs in the Himalayas for water security. Government of India.

⁴⁰ Aryal, I. (2023). Drying up of springs affects supply of water. The Rising Nepal. Retrieved from <https://risingnepaldaily.com/news/31444>

childhood where girls are typically assigned more household chores and care-giving responsibilities compared to boys. Unpaid care work involves the essential tasks and services carried out within households and communities; these activities include cooking, cleaning, ensuring access to necessary nutrition, childcare, and care of the elderly. All these are inherently gendered and almost all of them are unpaid, unrecognised, and undervalued labour being performed by women.

Financial capital: Gender inequality in unpaid care work is the main cause and consequence of women's low labour force participation, the type and quality of employment opportunities available to them, their near absence from the decision-making structure, and the unequal wages that are paid to them. Moreover, women's unpaid work in the household and their engagement in the informal sector which is the backbone of the HKH economy continue to be insufficiently protected by legislation or safety nets. This makes them more vulnerable to economic shocks during disasters and crisis situations as was experienced during the COVID-19 pandemic. Besides, compared to old men, old women are usually poorer. Every minute more that a woman spends on unpaid care work represents one minute less that she could be spending on market-related activities or on investing in her educational and vocational skills.⁴¹

Time poverty: Time is considered a 'human resource'. Unlike other resources, one thing unique about time is that everyone has access to equal amount of time, i. e., 24 hours in a day. There is a misconception that women's time is elastic, and they should be able to engage in both household and outside work. This has adverse effects on their well-being and choices to pursue their interests. While women's unpaid work is seemingly invisible, it subsidises the government's healthcare costs and provisioning of household goods and services. In effect, there is a time tax on women. In Nepal, 94 per cent of young women between the ages of 15 and 24 are involved in household work, which takes away their time from schooling, resulting in lost opportunity costs

and disabling them from chances of getting decent employment.⁴² Overall in the HKH, women struggle to get an education and find it difficult to upgrade their skills; this has obviously had a debilitating effect on their well-being and capacity.

Violence against women: Much of the abuse that women are subjected to in the domain of the household – rape, sexual violence, sexual harassment, incest, domestic violence, dowry deaths, and honour killings – continues with impunity and is even socially sanctioned in the name of culture. Women and girls also face a heightened risk of violence when they walk long distances to fetch water – there have been instances of rape during such water-collection walks. Indeed, water is sometimes at the core of violence against women – it could be at the queue at water taps or at home from an angry husband when there is no sufficient water. Thus, safety and freedom from violence (both violent acts and threats of violence) have been identified as a key dimension of gender-related inequality in WASH.⁴³

Health: Transporting heavy loads of water on the head and hips on a daily basis has health consequences for the women. These could be in the form of musculoskeletal disorders of the neck, spine and joints. And it is a grave irony that such health issues occur in the HKH region, which is famously known as the Water Tower of Asia.⁴⁴ But the reality is that as sources of freshwater are drying up, it is women's health that is bearing the brunt – women who fetch water tend to suffer from fatigue, bodily pain, and mental stress. As for pregnant women, the combined effects of carrying heavy loads of water and drinking contaminated water can have devastating effects on them and the foetus. And when women are affected, the well-being of families and the larger society too are affected. Indeed, the well-being of a country depends on women's health since the onus is thrust primarily on them to produce healthy citizens. Health is also affected by the consumption of water contaminated by domestic sewage and industrial waste, which leads to intestinal diseases and severe cases of diarrhoea.

⁴¹ Addati, L., Cattaneo, U., Esquivel, V., and Valarino, I. (2018). Care work and care jobs for the future of decent work. Geneva: ILO. Retrieved from <https://www.ilo.org/publications/major-publications/care-work-and-care-jobs-future-decent-work>

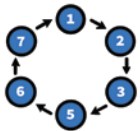
⁴² Du, Y. (2020). Millions of hours spent daily on unpaid work: Evidence from Asia and the Pacific.

⁴³ Sommer, M., Ferron, S., Cavill, S., & House, S. (2015). "Violence, gender and WASH: spurring action on a complex, under-documented and sensitive topic." *Waterlines*, 34(1) <https://doi.org/10.1177/0956247814564528>.

⁴⁴ Rao, P., Areendran, G., & Sareen, R. (2007). Potential impacts of climate change in the Uttarakhand Himalayas. Retrieved from <https://lib.icimod.org/records/a7gtn-ttg89>

SESSION 3

Spring mapping and preliminary data collection

	Session objective - Gain information about the community and springs - Enhanced understanding of sex and GESI-disaggregated data - Upgrade skills on the application of GESI-aware tools for spring mapping
	Session duration - 45 minutes
	Methodology - PPT presentation - Discussion - Experience sharing
	Materials required - Laptop - Projector screen - Flip chart - Marker pens
	Activity process - The facilitator will display the prepared PPT presentation - At the end of the PPT presentation the floor will be open for discussion and/or clarifications of concepts. - Referring to the trainer's manual, the facilitator will ensure that the session is interactive and request participants to share their experiences
	Handouts

ACTIVITY 1 | PRESENTATION (45 min)

WHAT IS SEX-DISAGGREGATED DATA?

Data broken down by sex i.e., women and men, girls and boys allow for the measurement of differences between women and men and girls and boys but does not tell the whole story. It does not provide the base for identifying gaps by categories of women and men and girls and boys e.g., which women, which men? Such an approach does not provide a holistic view of the actual realities and, therefore, prevents from addressing the specific practical gender needs and strategic gender interests⁴⁵ for overcoming GESI gaps to achieve the outcome of gender equality.

WHAT IS GESI-DISAGGREGATED DATA?

GESI-disaggregated data refers to data and information that is collected, analysed and presented separately for girls, women, boys and men belonging to diverse groups such as Dalits, ethnic, indigenous and other disadvantaged groups such as poor, children, the elderly, people with disabilities, those living in isolated areas, those without land and/or access to services that are classified by sex, gender, caste, class, age, location, religion, language, etc. In many contexts, particularly in research, statistics and reporting, data is often collected and analysed with a focus on GESI-specific information. This practice aims to provide a more detailed and nuanced understanding of how various factors or phenomena affect different categories of people.

For example, in the field of education, GESI-disaggregated data might involve looking at the academic performance, enrolment rates, or disciplinary outcomes separately for women, men, and other disadvantaged students classified by sex, gender, caste, class, age, location, religion, language, etc. Within this, data collected and analysed by GESI parameters will also reveal the condition and position of different categories of women and men. In healthcare, it could involve analysing health outcomes, prevalence of diseases, or access to healthcare services based on GESI parameters.

The goal of using GESI-disaggregated data is to uncover and address disparities or differences between different categories of people, leading to more informed decision-making, policy formulation and intervention development that can better cater to the needs and experiences of both men and women. It helps in understanding GESI-specific patterns, challenges, and opportunities, contributing to a more equitable and inclusive approach in various fields.

WHY IS GESI-DISAGGREGATED DATA IMPORTANT?

Identifying disparities: Analysing data separately for different categories of people allows for the identification of disparities and inequalities that may not be visible in sex-disaggregated data or national averages. This information is crucial for understanding and addressing social, economic, and educational gaps between different categories of men and women.

Informed decision-making: Policymakers, researchers, and organisations can make more informed decisions when they have a detailed understanding of how various issues affect women, men and disadvantaged groups of people and individuals within those groups. GESI-disaggregated data helps in tailoring interventions and policies to address specific needs and challenges faced by specific categories and groups of men and women, thus making those interventions GESI-responsive.

Targeted interventions: By having a clear picture of GESI-specific challenges, trends and patterns, interventions can be designed and targeted more effectively. This is particularly important in areas such as healthcare, education, and employment where gender-specific strategies can lead to better outcomes.

Promoting gender equality: GESI-disaggregated data plays a key role in monitoring progress towards gender equality. It helps measure and

⁴⁵ Moser, C.O.N. (1989). Gender planning in the Third World: Meeting practical and strategic gender needs. *World Development*, 17(11), 1799–1825.

track improvements or setbacks in various indicators, contributing to the development and evaluation of policies aimed at promoting equal opportunities for all genders.

Gender responsive budget (GRB) allocations:

Understanding how resources are distributed among different categories of people enables more equitable resource allocation. In tracking where the money comes from and where it goes, budgets determine how public funds are raised, how they are used and who benefits from them. It seeks to incorporate a gender equality perspective into the budgetary process for ensuring efficient allocation of resources based on identified gender needs and to restructure revenues and expenditures to strengthen Gender Equality and Women's Empowerment (GEWE). GESI-disaggregated data are vital for determining gender equitable budget allocation. GRB is not about making separate budgets for men and women but looking at the whole pie and taking intentional measures to incorporate a gender perspective in planning and budgeting frameworks and concrete investment in addressing gender gaps.

Research and innovation: In research, having GESI-disaggregated data allows for a more nuanced exploration of how different factors interact with GESI. This can lead to new insights, discoveries, and innovations that are sensitive to GESI-specific needs and differences.

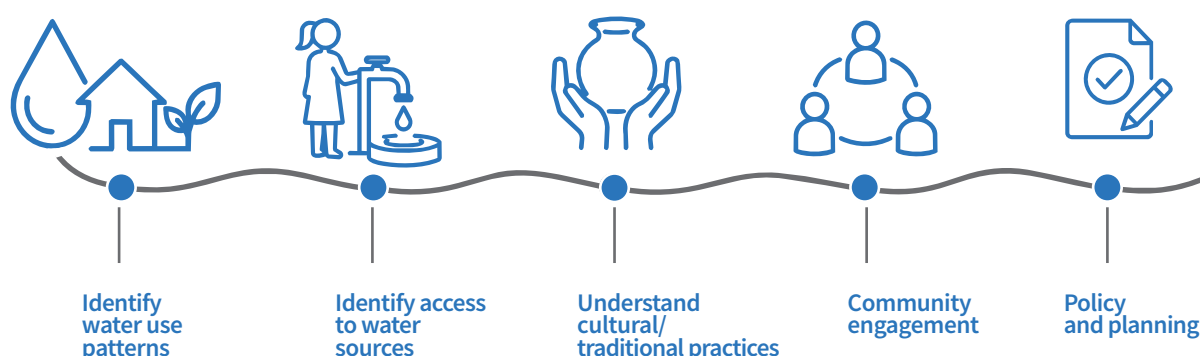
Accountability and transparency: Using GESI-disaggregated data promotes accountability by highlighting areas where progress is needed. It also fosters transparency in reporting, ensuring that information is accurate and comprehensive.

UNDERSTANDING THE COMMUNITY

The community is a diverse collection of different interests, social groups, and sectors. It is not always easy to fully understand the real context of the community unless it is viewed from an insider's perspective. As such, understanding the community is a major factor in building rapport and provides a much larger perspective when conducting the community situational assessment.

FIGURE 4

OBJECTIVES OF COLLECTING GESI-DISAGGREGATED DATA



To understand the community, the community organiser has to collect information on the following:

- Social groups
- Cultural arrangements
- Economical characters
- Spatial characters
- Disadvantaged household and groups
- Social dynamics
- Basic service and facilities available in the community
- General socio-economic status or character of the community

The six-step protocol for reviving springs (Step 1) suggests that, some preliminary socio-economic information should be collected, in particular data on the households that depend on each spring, including those from disadvantaged communities, the nature of the distribution system, the purposes for which water is collected, people's perceptions of present water quantity and quality and any changes over the last decade, and whether there are any major conflicts related to water use.⁴⁶

UNPACKING GESI-DISAGGREGATED DATA FOR SPRINGSHED MANAGEMENT

Gender roles in spring management refer to the socially constructed expectations, norms, and responsibilities assigned to individuals based on their perceived gender. These roles influence how men and women participate in and contribute to various aspects of water-related activities, including access, use and governance. Traditional gender roles often shape the division of labour and decision-making processes related to water within communities.

The time spent by women and girls in collecting water also hampers their ability to learn and, later in life, to equally access paid work. In rural Nepal, where women and girls collect water in more than 90 per cent of households without access to

drinking water on premises, a one-hour increase in the time spent to collect water decreases girls' probability of completing primary school by about 17 percentage points⁴⁷.

GESI-disaggregated data related to water is hard to come by. Analysing GESI-disaggregated data pertaining to springs and water resources requires a nuanced approach that goes beyond generalisations and broad understandings. While overarching figures and statistics can provide a broad context, they often fail to capture the intricate dynamics and specific challenges faced by members of the communities in accessing and managing spring water. In addressing critical GESI issues related to spring, it is important to delve deeper into localised data that reflects the unique circumstances of each spring and members of the community.

A general understanding, as depicted in broad figures, may obscure the disparities and vulnerabilities experienced by different demographic groups within a community. For instance, while a rural average may suggest sufficient access to water, it may conceal disparities between genders or disadvantaged groups within that rural setting. By zooming into the specifics of individual springs and communities, one can uncover disparities in access to and control over water resources, which may disproportionately affect women, ethnic minorities or other disadvantaged groups. Furthermore, a general figure fails to account for the intricacies of spring dynamics, such as variations in water quality, availability, and reliability. Springs can vary significantly in their flow rates, seasonal patterns, and susceptibility to contamination, all of which can have profound implications for water access and quality. Analysing data specific to each Spring allows for a more accurate assessment of its characteristics and the challenges it presents for different community members.

Moreover, understanding the social, cultural, and economic context surrounding each spring is crucial for addressing GESI issues effectively. Localised data can reveal underlying social norms,

⁴⁶ Shrestha, R.B. et al., (2018). Protocol for Reviving Springs in the Hindu Kush Himalaya: A Practitioner's Manual, ICIMOD Manual 2018/4. Kathmandu: ICIMOD p. 13

⁴⁷ Azcona, G., Bhatt, A., Brauchle, J., & Fortuny, G. (2023). From Commodity to Common Good: A Feminist Agenda to Tackle the World's Water Crisis - Spotlight on SDG Goal 6. UN Water; UN Women.

power dynamics, and traditional gender roles that shape access to and control over water resources. For example, certain religious and cultural practices or beliefs may restrict access to use of spring-water by women and particular groups of people or prevent participation in decision-making processes related to Spring management, perpetuating gender inequalities and social exclusion. By collecting and analysing data at the individual, household and community level, stakeholders can identify targeted interventions to address GESI issues in relation to use and access to and control over spring water. This may involve implementing GESI-sensitive water governance mechanisms, providing training and capacity-building programmes for disadvantaged groups, or promoting inclusive decision-making processes that involve all community members. Furthermore, localised data facilitates participatory approaches to springshed management, where community members actively engage in identifying their own needs, priorities, and solutions. By involving diverse stakeholders in the data-collection and analysis process, interventions can be tailored to address the specific challenges faced by each community, thereby fostering ownership and sustainability.

Furthermore, understanding the demographic composition helps identify groups that may be disadvantaged in accessing Spring water. This includes data on the distance to the springs, time spent collecting water, its uses, frequency of visits and the quantity of water collected. GESI-disaggregated data is crucial here to understand the differential impact on different categories of women and men. Data on income generation

Citizen science-based approach for mapping spring: An estimated nine million springs in the HKH sustain over 100 million people. However, many are drying up, disproportionately impacting rural communities – especially women, who bear the brunt of water scarcity. In Nepal’s Kavre district, ICIMOD’s citizen science initiative for mapping springs is shifting this narrative. By training over 150 CRPs, including 81 women, to map 5,500+ springs and ponds across 743 sq km, ICIMOD’s Himalayan Resilience Enabling Action Programme (HI-REAP) is fostering local ownership and inclusive decision-making. By sensitising and building the capacities of 150+ local representatives on springshed management, it has ensured that women and marginalised groups play a central role in monitoring and safeguarding this vital resource.

opportunities, agricultural productivity, access to markets, changes in household livelihood strategies, representation in water user committees (WUCs), leadership positions and involvement in planning and decision-making activities is different from place to place and community to community. Understanding these dynamics is crucial for assessing equity and fairness in resource allocation. This involves collecting qualitative data through interviews, FGDs, and participatory methods to understand community perceptions, attitudes and beliefs related to gender and water management as already discussed, Session 2.

TABLE 3

GESI-DISAGGREGATED DATA COLLECTION FRAMEWORK

1	Demographic information by sex, age, caste, class, ethnicity, sexual-orientation, disability, religion, geographical location, education, income, etc.
2	Household composition
3	Community roles
4	Water access
5	Water consumption
6	Community engagement
7	Challenges

TOOLS FOR DATA COLLECTION

These can be collected through the tools mentioned below for: (i) identifying patterns of water use; (ii) access to water sources; (iii) understanding cultural and traditional practices; (iv) community engagement; (v) policy and planning and; (vi) GESI-responsive springshed governance systems:

Historical timeline analysis: Historical timeline analysis is a tool for gathering information about what happened in the past. Most histories are about powerful people. Every individual has a role in society, and therefore it is important to help people understand that those who have no power can also influence the direction of change and make history.⁴⁸ This tool is used to understand past events, trends, and changing contexts to gain insights from dynamic historical developments and their impacts. This tool can track changes in the environment and community behaviors and shed light on the causal links. It would be accessed based upon two major criteria namely: (i) Collecting information from community senior citizens based on their memory and first-hand accounts of access to and control over spring water and availability, trends and patterns of collection and distribution. This can be done through KIIs or FDGs with community members; and (ii) Extracting and analysing data through secondary sources such as literature reviews and existing statistical analysis.

Transect walk or open street mapping: A transect walk is a method used to observe and document various aspects of the community. It involves physical walking through the community with the community people to observe the surroundings, settlement patterns, topography, key landmarks, resources and services available, distance from the springs, number of springs in the community and who live near it. During the walk the demographics of people, the type of buildings, infrastructure, distribution of community density, land use patterns, natural features of the landscape like hills, plains and water bodies, and interaction of the community

people in the natural landscapes are observed and documented. It can also involve interviewing passers-by and drawing a map with observations of characteristics, risks and existing solutions after the walk.

Problem and solution tree analysis: The problem and solution tree is a flow diagram which shows the relations between different aspects of a particular issue or problems. This tool can be used during the situation analysis or community risk assessment. The tool can be used to direct participants towards analysis of the situation and to build up a picture of the major problems of water the community faces. The tool shows the cause-and-effect relationship of a particular problem. For each cause identified, at least 3-4 sub-causes are identified through 'why' questions to identify the root cause of the problem/s at the roots of the tree and similarly the effect of the causes is also identified which appear on top of the tree in the form of leaves. The trunk of the tree signifies institutions that are primarily responsible for the problems as well as the solutions. Reversing the problems helps to come up with solutions on a realistic basis. In other words, a solution tree identifies means-end relationships as opposed to cause-and-effect relationships.

Well-being Ranking: Well-being ranking will help to identify the people/community's main sources of income as well as the economic status of households to design community-based activities that can protect and strengthen livelihoods/economic security, making the people/communities more resilient and capable of withstanding the impact of climate change on water resources.

The tool can be used to: (i) Understand how people obtain their basic needs and any additional income; and (ii) To indicate the strength and resilience of people's livelihoods concerning water. The ranking involves gathering information on the household's main source of income, understanding the stability of income source, household assets, and access to services.

⁴⁸ Kūhhas, B., Silawal-Giri, B., & Barton, T. (2016). SAKCHAM and women's empowerment in Nepal: Stories and strategies-Lessons and guidelines. CARE Nepal & CARE Austria.

The well-being ranking serves as a valuable tool for understanding the economic dynamics and vulnerabilities of communities, guiding the design of targeted interventions to protect and strengthen livelihoods, and building resilience to climate change impacts on water resources.

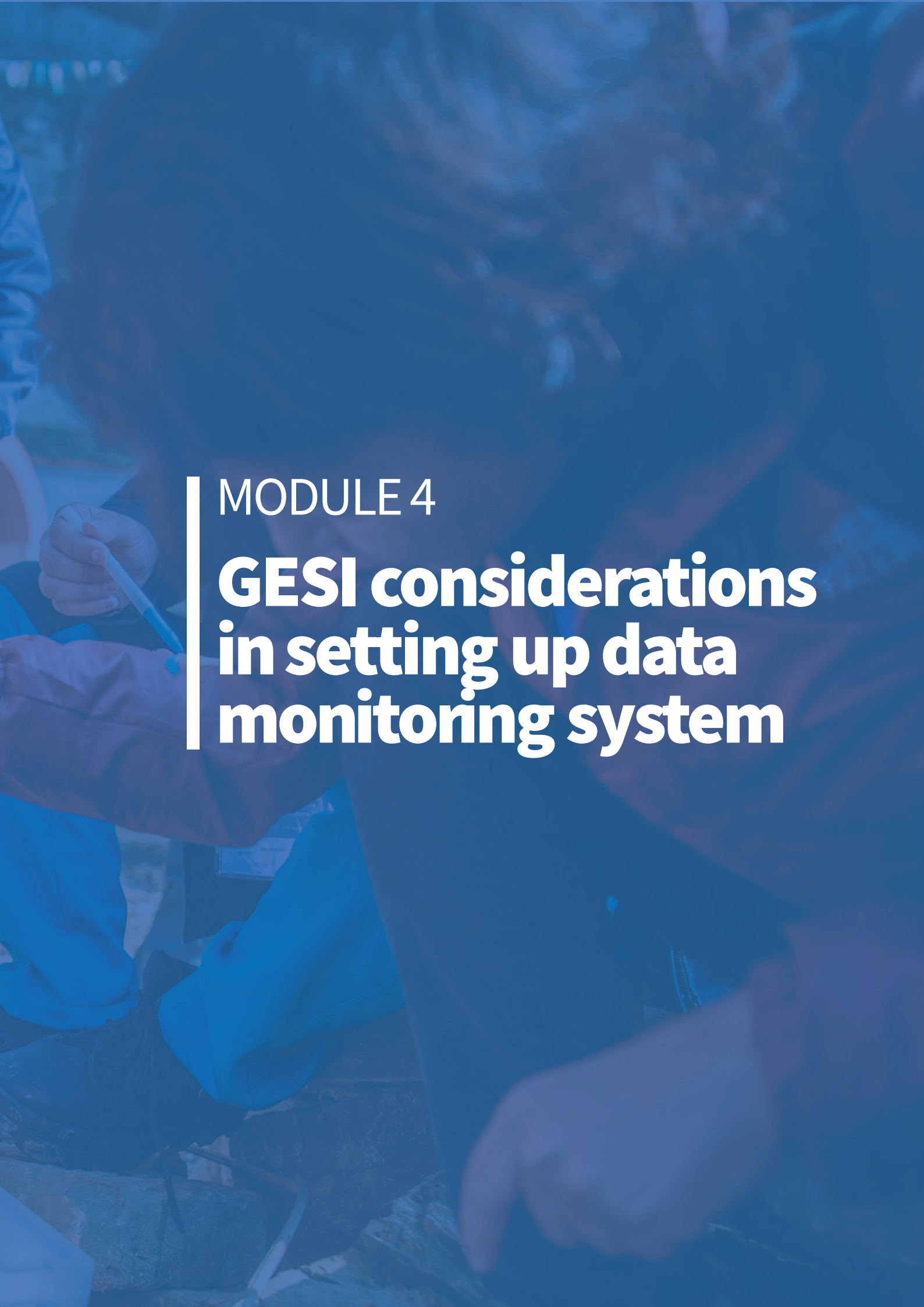
VENN DIAGRAM ANALYSIS

This tool uses a diagram to show key stakeholders, groups and individuals in a community, the nature of the relationships between them and the perceptions that people have of springs. Venn diagram analysis is a graphical method used to visually represent the relationships and intersections between different stakeholders. The Venn diagram consists of overlapping circles, each representing a specific stakeholder. The areas of overlap between circles indicate commonalities or intersections between the stakeholders, while the non-overlapping regions represent unique attributes or differences. The

size and distance of the circle also represent the level of influence in the community and in this manual, it is the specific influence on spring revival and spring-shed management. The tool can be used to:

- i. Understand the perceptions that local people have of the role and significance of various organisations within the community;
- ii. Stimulate discussion which may lead to the identification of the role each stakeholder can play in use and access to springs;
- iii. Gather information on how well the groups' function and how well they coordinate with one another; and,
- iv. Identify which stakeholders, groups and individuals play an important role in times of water shortage and in community-level decision-making mechanisms.



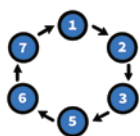


MODULE 4

GESI considerations in setting up data monitoring system

SESSION 1

Importance of women and daily users of springs as data collectors

	Session objective - Understand the importance of women and daily users of springs as data-collectors - Understand the importance of sharing data with the community for building ownership of springshed management
	Session duration - 1.5 hours
	Methodology - PPT presentation - Group-work exercise - Plenary discussion
	Materials required - Laptop - Projector screen - Flip chart - Marker pens - Thumb pins - Whiteboards
	Activity process - Participants will be divided into 5 groups and given instructions on conducting the group work exercise - Each group will appoint a moderator to moderate the discussions, a timekeeper to keep track of the time, and a rapporteur to present back in plenary - Case studies will be distributed to the groups - After engaging in a 30-minute group work exercise, the groups will make their presentations (5 minutes per group), followed by a brief plenary discussion: 30 minutes - The facilitator will summarise the discussions from the group work findings and recommendations - The facilitator will display the prepared PPT presentation - At the end of the PPT presentation, the floor will be open for discussion and/or clarifications - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts - Case study

ACTIVITY 1 | GROUP EXERCISE: CASE STUDY (60 min)

- Divide the participants into five groups
- Request each group to appoint a moderator to moderate the discussions, a timekeeper to keep track of the time, and a rapporteur to make the group presentation
- Distribute the case studies to the groups and inform them that they have 30 minutes for the group work and five minutes to present
- After engaging in 30-minute group-work exercise request the groups to make their presentations which will be followed by a brief plenary discussion
- Summarise the discussions of the group work findings and recommendations

REFLECTING ON THE STORY, PLEASE PROVIDE BRIEF ANSWERS TO THE FOLLOWING QUESTIONS:

1. What were the key factors that led to the successful involvement of women in springshed management?
2. What other strategies, other than those mentioned in the case study could be employed to gain support for women to become data collectors for springshed management?
3. As a practitioner, please recommend some strategic approaches that can be applied in similar contexts in the HKH region?

CASE STUDY

In a small village between the hills, water was more than a resource; it was life itself. Springs gushed from the earth, providing sustenance for crops, animals, and families. However, the delicate balance of this ecosystem required careful monitoring, a task traditionally delegated to men. That was until a group of women decided to take matters into their own hands. Among these women, was a young girl who grew up watching her mother and grandmother tend to the springs, noticing their intuitive understanding of the water's flow. When drought threatened their community, she knew it was time for change.

Gathering a group of like-minded women, she proposed an idea: women as the primary users and managers of water resources should be the monitors of springs. Initially met with skepticism, her passion and determination won over the hearts of the village elders, and soon, the women were granted permission to take charge. Armed with basic training in hydrology and data collection techniques, she and her team set out to monitor the springs. They established a rigorous schedule, taking measurements, recording data, and noting any changes in water levels or quality. With each passing day, their knowledge and confidence grew, and they became the guardians of their community's most precious resource. They began sharing their findings with the community and impacting decisions related to springs management and use.

Empowered by their newfound roles, they formed networks, sharing best practices and advocating for gender-inclusive water policies. With women at the lead, the once-vulnerable springs flourished. Through their diligent efforts, they identified areas for conservation, implemented sustainable practices, and ensured equitable access to water for all members of the community. Women, once marginalised in matters of water, have emerged as leaders and stewards of the land, their voices echoing through the valleys, a testament to the power of determination and collective action.

ACTIVITY 2 | PRESENTATION (30 min)

THE ROLE OF WOMEN AND DAILY USERS OF SPRING IN DATA COLLECTION

Diverse perspective as well as a user-focused perspective: As women and daily users of springs are the ones who are majorly responsible for collecting and using water at the household level they would provide a user-focused perspective and perspective across diverse social groups. This is because they understand the issues through lived experiences and are able to approach the data collection process from a self-reflective angle.

Accurate and complete data: As women are the collectors and users of water, they would be more cognizant of water discharge and flow. This knowledge would ensure the accuracy of data and provide realistic information on the status of springs. External data collected may tend to approach the data collection process through surface information and may not have in-depth information of the trend of water discharge and flow even if the data collector would be observing this for some time. Having local women data-collectors is not only cost-effective compared to hiring an external data collector but also an efficient way of data collection that is more reliable and grounded on facts.

Participation in decision-making: Engaging women in data-collection provides them the opportunities to participate in activities such as decision-making that impact their daily lives. This contributes to influencing decisions to promote their practical gender needs such as availability of water including their strategic gender interests. For example, advocacy for collecting spring water through piped water systems that deliver water to their homes would facilitate their involvement in paid work such as data collection or other gainful employment or engagement in income-generating activities that would boost their income.

Improved programme design and

implementation: Data collected with the input of women can lead to more effective programme design and implementation as they are equipped with information on springs, which would then help to identify GESI-specific needs, like time taken to get water depending on months where there is high discharge and months where there is low discharge. This information will help tailor programme design to address gender-specific needs and barriers, leading to more targeted and GESI-responsive interventions.

Policy development and advocacy: Women's participation in data-collection strengthens the evidence base for policy development and advocacy efforts. It enables policymakers and advocates to make more informed decisions and advocates for eco-friendly infrastructure to respond to the water crisis.

Transformed gender and social relations:

Involving women in data-collection builds their capacity in research, data analysis, and leadership skills. It fosters their participation in fields traditionally dominated by men and promotes gender parity in these areas.

DATA SHARING WITH THE COMMUNITY⁴⁹

While understanding springs and springshed management, data collection and analysis are crucial for understanding various aspects of springs, such as their flow patterns, water quality, recharge mechanisms, and vulnerability to changes in land use or climate in relation to gender and social inclusion. By collecting and analysing data, practical insights can be gained into the dynamics of springs and make informed decisions about their management and use.

Once data has been collected and analysed, it is essential to share the findings with the local community to ensure:

⁴⁹ Shrestha, R.B., Desai, J., Mukherji, A., Dhakal, M., Kulkarni, H., Mahamuni, K., Bhuchar, S. & Bajracharya, S. (2018). Protocol for reviving springs in the Hindu Kush Himalayas: A practitioner's manual. ICIMOD Manual 2018/4. Kathmandu: ICIMOD.

Community engagement and ownership:

Sharing data with the local community fosters their engagement and ownership of the whole process related to springshed management. The community members are empowered to participate in decision-making and take collective action to protect and sustainably manage their water resources.

Builds trust and transparency: Sharing data promotes transparency of the process of springshed management and builds trust between practitioners, and the local community. By openly sharing findings and methodologies, stakeholders demonstrate their commitment to making the process participatory and accountable to the user groups.

Integration of tradition and local knowledge in the planning and implementation process: Local communities often possess valuable traditional knowledge about springs and their ecosystems which have been used historically to protect the springs. Sharing data with the community allows for the integration of this traditional and local knowledge into management strategies, enhancing their effectiveness and cultural appropriateness.

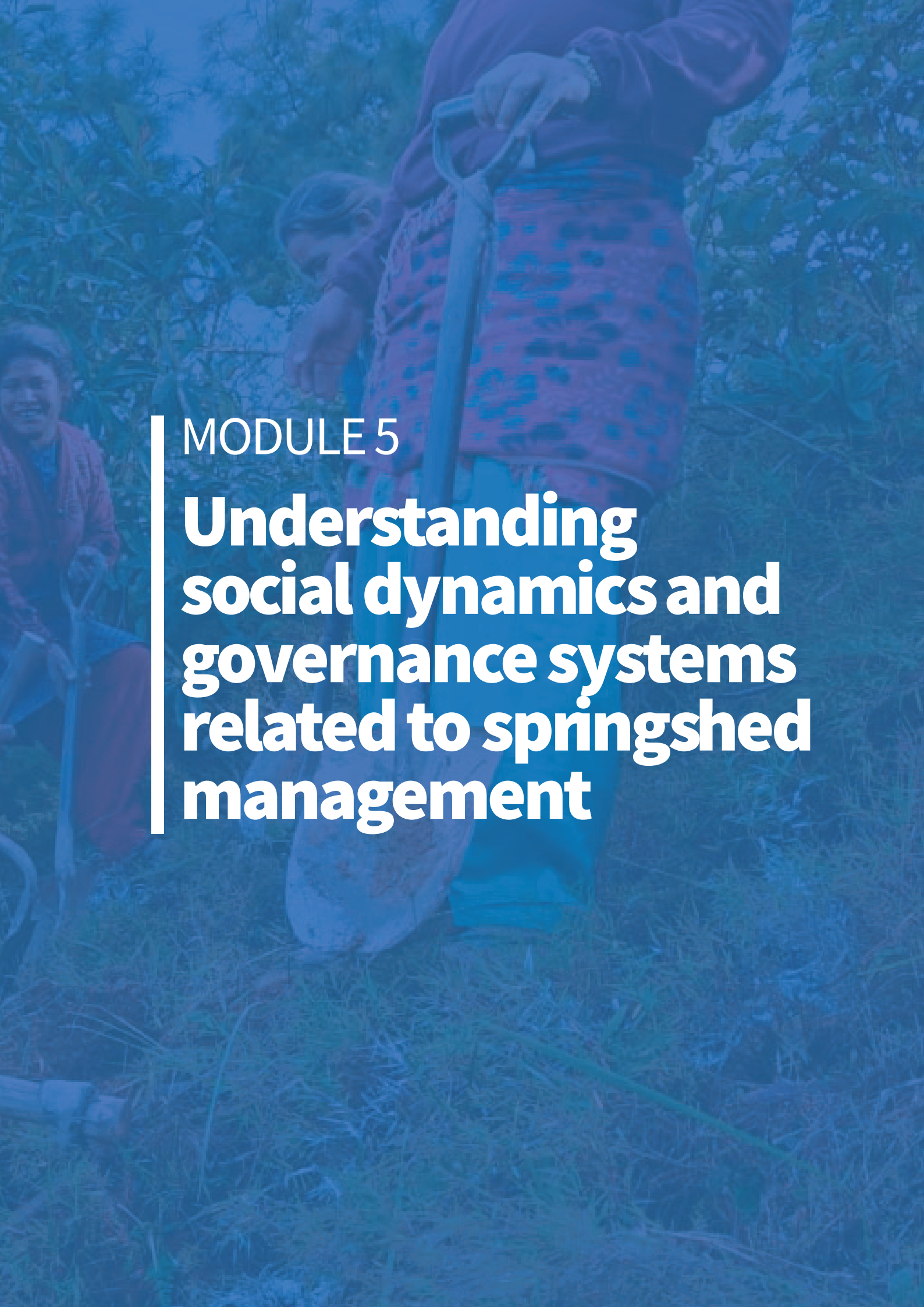
Nature-based solutions: Sharing data in a format accessible to the local community, such as simple hand-drawn graphs and charts, can help build the community's capacity to understand and interpret scientific information. It empowers community members to actively participate in monitoring efforts and decision-making processes. Activities and protocols can be tailored to suit the specific needs and priorities of the community through nature-based solutions. This ensures that management interventions are contextually relevant and have greater acceptance from community people and users.

Sharing information with the local community becomes particularly critical during later phases of springshed management activities, such as Step 5, where management plans are developed and implemented to promote long-term sustainable water resource management practices.

Training local residents on basic hydrogeology⁵⁰ and especially the direct user groups like women are essential for them to understand the scientific process of springshed management and ensure regular monitoring for its sustainability. Training local people would enable to set up a long-term monitoring and sustainability approach beyond the intervention period through a community-led process. Training women on springs and the water-supply system and equipping them with working knowledge and skills to understand the science behind community water resource management would ensure monitoring efforts on scientific grounds like water quality, discharge, ground water level along with social variables. This would add value and reliability of the data collected and sustain efforts on spring revivals. Local residents who are trained in hydrogeology can play an active role in managing their springs effectively. By understanding the factors influencing spring behavior, such as land use changes, climate variability, and groundwater recharge mechanisms, community members can implement appropriate management practices to protect and conserve their water sources. It promotes skill development and knowledge transfer, enabling community members to take on leadership roles in springshed management initiatives.

⁵⁰ Shrestha, R.B., Desai, J., Mukherji, A., Dhakal, M., Kulkarni, H., Mahamuni, K., Bhuchar, S. & Bajracharya, S. (2018). Protocol for reviving springs in the Hindu Kush Himalayas: A practitioner's manual. ICIMOD Manual 2018/4. Kathmandu: ICIMOD.



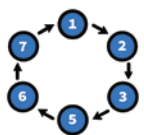
The background image shows a group of people in a field, possibly engaged in agricultural work. A person in the center is wearing a red patterned skirt and a dark top, holding a long-handled tool. To the left, another person is smiling. The entire image is covered with a semi-transparent blue overlay.

MODULE 5

Understanding social dynamics and governance systems related to springshed management

SESSION 1

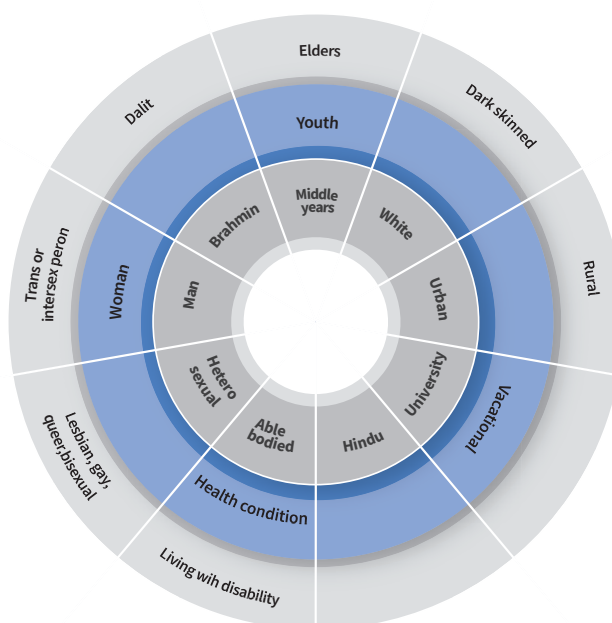
Intersectionalities, social hierarchies, and gender power dynamics in access to and control over spring water resources

	Session objective To gain an understanding of how intersectionalities, social hierarchies, and gender influence power dynamics, and determine access to and control over spring water resources
	Session duration - 1.25 hours
	Methodology - Individual and group-work exercises - Brainstorming and reflection - Plenary discussion - PPT presentation
	Materials required - PPT presentation - Projector - Screen - Laptop - Flip charts - Marker pens - Colour crayons - Thumb pins
	Activity process - The 'wheel of power' activity exercise will be conducted, followed by presentation. - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts

ACTIVITY 1 | INDIVIDUAL EXERCISE – WHEEL OF POWER (45 min)

FIGURE 5

WHEEL OF POWER



Source: Adapted from Jamieson et al., (2023)⁵¹.

START WITH THE EXERCISE: SOCIAL HIERARCHIES AND POWER

- Show the 'wheel of power' to the participants
- Request the participants to draw the wheel of power on a piece of paper
- Request them to fill out the missing sections of the circle in their own context by shading or colouring the segments of the wheel of power where 'you' are located (15 minutes)
- The closer you are to the center of power, the more privileged you are
- Once the participants have completed the wheel of power, request them to:
 - Reflect what that means in relation to others
 - How does this relationship affect their power and privilege?
 - What are some identities that they hold that are powerful or powerless?
 - What can they change in their wheel of power?
 - What cannot they change? And why?

Request some participants to provide their perceptions on the above questions. (20 minutes)

After completion of the exercise explain to the participants: (after 10 minutes)

- The inner wheel that you see are some of the identities you are born with – some are given such as sex, caste, class, ethnicity, race and religion and there some that you can change – sex (nowadays with technological innovations one can change one's sex according to one's sexual orientation), gender, physical abilities/qualities, and religion. That is why our lives cannot be explained by single categories, such as gender, race, sexual orientation etc. Lived experience is an interactive process that goes beyond individual labels.
- Therefore, to understand someone's experience, we must also understand the structures, systems, and relationships because they involve power dynamics in which power imbalances are inevitable. The question is how do we acknowledge and negotiate power, particularly in institutions that perpetuate discrimination, inequality, and marginalisation.

⁵¹ Jamieson L., Ju X., Haag D., Ribeiro P., Soares G., and Hedges J. (2023). An intersectionality approach to Indigenous oral health inequities; the super-additive impacts of racism and negative life events. PLoS ONE 18(1): e0279614. <https://doi.org/10.1371/journal.pone.0279614>

ACTIVITY 2 | PRESENTATION (30 min)

INTERSECTIONALITY WHEEL

Power and intersectionalities: Power dynamics play a crucial role in shaping access to resources such as water, particularly when intersecting factors are considered, such as gender roles and responsibilities, and caste issues.

Gender roles and responsibilities: Gender roles often dictate the division of labour within societies, including responsibilities related to water collection, management, and usage. In many cultures, women are usually responsible for

fetching water for household needs. This gender division of labour can create power imbalances, as women may have limited decision-making authority over water resources compared to men⁵². Additionally, women's lack of access to education and employment opportunities may further exacerbate these power differentials.

Caste issues: Caste systems, prevalent in various societies of the HKH region, stratify communities. Historically, caste-based discrimination has resulted in unequal access to resources, including water. 'Lower caste' individuals or

FIGURE 6 INTERSECTIONALITY WHEEL



Source: Graphic adapted from the CRIAW/ICREF Intersectionality Wheel

Present the 'Intersectionality Wheel'⁵³ and referring to the information provide below, invite

participants to share their experiences on the issues after the presentation.

⁵² Jalali, R. (2021). The role of water, sanitation, hygiene, and gender norms on women's health: A conceptual framework. (2021). In: Gendered Perspectives on International Development, Vol. 1, pp. 21–44. <https://doi.org/10.1353/gpi.2021.0001>

⁵³ Simpson, J. (2009). Everyone Belongs: A toolkit for applying intersectionality. Ottawa : CRIAW/ICREF. Retrired from <https://www.criaw-icref.ca/wp-content/uploads/2021/04/Everyone-Belongs-A-Toolkit-for-Appling-Intersectionality.pdf>

disadvantaged communities often face systemic barriers that restrict their access to clean water sources, sanitation facilities, and infrastructure development. Discrimination and prejudice based on caste can reinforce power differentials, thus perpetuating cycles of poverty and marginalisation.⁵⁴

Intersectionality is an analytic framework that identifies how interlocking systems of power impact those who are the most disadvantaged in society. Taking an intersectional approach means looking beyond a person's individual identities and focusing on the points of intersection of their multiple identities, whether they be social, political economic, or religious, which create and lead to discrimination or privilege. These interlocking systems of power such as caste, class, race, and religion are not actually linear, and people can experience privilege and oppression simultaneously. It's from the realisation that identity is important that the idea of the intersectional approach took shape as our lives are multidimensional and complex, and played out in multiple settings.

In the context of access to water, intersectionality highlights how various identities – of gender, race, class, and caste – intersect to shape people's experiences and vulnerabilities. For example, a Dalit woman in a rural community may face compounded challenges due to her gender, caste, and economic status, which can significantly impact her ability to access clean water, sanitation, and hygiene services.

Vulnerability: Issues such as unequal power relations and access to water are complex in the HKH, and they illustrate the vulnerabilities of specific categories of people such as women, disadvantaged and indigenous communities, and individuals with disabilities. Their lives are influenced by various historical, geographical, social, cultural, economic, environmental, political, and gender contexts. Marginalisation, vulnerability, and exclusion may be felt most by those belonging to more than one of these

groups. Gender discrimination heightens risks for women and girls in general, but vulnerability is the greatest for those who also face other discriminations related to socio-economic standing, place of residence, race and ethnicity, and disability⁵⁴. Equally, a person may experience the vectors of both privilege and oppression due to the intersection of her or his identities – for example, a woman from a high-income group or a 'high' caste may enjoy some privileges owing to her social status but may experience exclusion because of her gender. And poor governance and the lack of access to resources and services compound these vulnerabilities.

HERE ARE SOME OTHER KEY POINTS TO CONSIDER:

Geographical challenges: In the HKH region, the steep topography of the mountainous terrains and diverse climatic conditions present challenges for accessing water, especially in the rural areas. In many villages, water sources are located far from settlements, and so significant time and effort is required to collect water, the onus of which usually falls on women and children (in Afghanistan, boys collect water, and in Nepal and India, girls help their mother in water collection). This is unpaid work, which comes at a cost, leaving them little time to pursue education or upgrade their skills, which could have provided opportunities for paid work. Collection of water in the mountains can also become precarious, especially during the rainy season, when tracks on the slopes become slippery.

Infrastructure: Rural areas in the HKH often lack adequate water infrastructure, including piped water systems, wells, and storage facilities. Limited investment in infrastructure development, coupled with the rugged terrain, can hinder access to clean and reliable water sources. When women's and girls' bodies serve as the infrastructure that supports the supply of water to households, owing to inadequate and unequal investment in water-supply mechanisms, their chances of experiencing adverse

⁵⁴ Shankar, I.M. (2012). Thousands of families denied access to safe water in Nepal. Asian Human Rights Commission (AHRG). <https://reliefweb.int/report/nepal/thousands-families-denied-access-safe-water-nepal>

physical and mental health problems grow. Musculoskeletal injury, particularly in the back and neck, and anxiety and stress from inadequate water access are prevalent in the region. Studies in Nepal and Lesotho have found that for women, the physical burden of carrying water is directly related to higher emotional distress and reduced capacity to perform daily chores.⁵⁵

Social hierarchies: Among Hindu communities in the HKH region, the phenomenon of caste has given rise to social hierarchies that exacerbate inequalities and vulnerabilities. In such a context, historically disadvantaged groups like the Dalits (regarded as ‘untouchables’) and indigenous communities face discrimination and exclusion in accessing water resources and in participating in decision-making processes related to water management. These caste and racial categories spawn marginality, inequality, and vulnerability. Field evidence on marginality and exclusion point out that people belonging to ‘lower’ caste and racial categories possess less power, have less access to resources and services, and are socially excluded, making them more vulnerable to market volatility, epidemics, and natural disasters.⁵⁶

Gender dynamics: Gender norms and roles play a significant role in shaping access to water in the HKH’s rural areas. As stated, several times earlier, women and girls are often responsible for water collection and household chores, which limit their educational and economic opportunities. Gender disparities related to water can also perpetuate cycles of poverty and reinforce unequal power relations within households and communities. In the absence of sanitation and toilet facilities, women and girls are compelled to wait for darkness to fall or early dawn to relieve themselves; this has led to many

of them contracting urinary and reproductive tract infections. It also produces psychological stress related to fear of intrusion or being watched on by men or being exposed to violence. Many rural women spend their entire lives suffering the indignity and lack of privacy of open defecation.⁵⁷

Political marginalisation: Rural communities in the HKH may face political marginalisation because of their limited representation in decision-making processes at the local and national levels. This can affect resource allocation and policy implementation related to water management, further exacerbating the state of inequality in access to water. Millions of Indigenous peoples, minority populations, and tribal groups inhabit the HKH region, and they are among the region’s poorest and most politically and socially marginalised sections⁵⁸.

Climate change: The Hindu Kush Himalaya (HKH) region is a vast mountain arc stretching 3,500 kilometers (2,100 miles) across Asia. Over the years, springs have been disappearing near the Himalayan settlements owing to anthropogenic and natural causes (refer to Module 3). Deforestation, decrease in forest areas due to encroachment for settlements and farming, overgrazing leading to tragedy of the commons, changes in land-use patterns for commercial agriculture, and exploitative land use resulting in soil erosion are depleting groundwater resources and decreasing the discharge rate of springs in the HKH region. Meanwhile, climate change is affecting the patterns of rainfall, resulting in highly variable rainfall or erratic downpours; there is also the problem of rainwater not seeping into the ground for recharging sources of spring water which poses additional challenges in terms of water availability in the region.⁵⁹ Thus, springs,

⁵⁵ UN Women and UN Water. (2019). From Commodity to Common Good: A Feminist Agenda to Tackle the World’s Water Crisis. <https://www.unwomen.org/sites/default/files/2023-07/from-commodity-to-common-good-a-feminist-agenda-to-tackle-the-worlds-water-crisis-en.pdf>

⁵⁶ Dilshad, T., Mallick, D., Udas, P.B., Goodrich, C.G., Prakash, A., Gorti, G., Bhadwal, S., Anwar, M. Z., Khandekar, N., Hassan, S.M.T., Habib, N., Abbasi, S.S., Syed, M.A., Rahman, A., (2019). Growing social vulnerability in the river basins: Evidence from the HKH Region. *Environmental Development*, Vol. 31, pp. 19–33.

⁵⁷ Saleem, M., Burdett, T., & Heaslip, V. (2019). Health and social impacts of open defecation on women: A systematic review. *BMC Public Health*, 19, 158. <https://doi.org/10.1186/s12889-019-6423-z>

⁵⁸ Wester, P., Mishra, A., Mukherji, A., & Shrestha, A.B. (2019). The Hindu Kush Himalaya Assessment: Mountains, Climate Change, Sustainability and People. ICIMOD, p. 436.

⁵⁹ KII with Badri Raj Dhungana, Joint Secretary and Spokesperson, MoFE, Nepal.

fed during the monsoon by groundwater or underground aquifers, are drying up and threatening whole ways of life of the local communities in most parts of the mid-hills of the HKH.^{60, 61} Smallholder farmers, who rely heavily on rain-fed agriculture, are particularly vulnerable to climate variability, which can further exacerbate the existing inequalities in agricultural productivity and access to water. This has also led to men migrating in search of jobs, resulting in the increased feminisation of agriculture.

In order to address the power dynamics and the structural and intersectional inequalities in access to water, multifaceted interventions that go

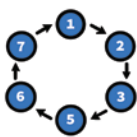
beyond infrastructure development are necessary. This involves challenging entrenched social norms, dismantling discriminatory practices, promoting gender equality, and ensuring inclusive decision-making processes. Community-driven approaches that centre the voices and priorities of disadvantaged groups are essential for fostering sustainable solutions that address the complex interplay of power dynamics, gender roles, caste issues, and other intersecting factors which affect access to water. Additionally, policy frameworks must be designed to prioritise equity, social justice, and human rights, ensuring that no one is left behind in efforts to achieve universal access to safe and clean water.

⁶⁰ Vashisht A. K. and Bam B. (2013). Formulating the spring discharge-function for the recession period by analysing its recession curve: A case study of the Ranichauri spring (India); *J. Earth Syst. Sci.* 122(5) 1313–1323, <https://doi.org/10.1007/s12040-013-0356-1>.

⁶¹ Mukherji, A., Molden, D., Nepal, S., Rasul, G., & Wagnon, P. (2015). Himalayan Waters at the Crossroads: Issues and Challenges. *International Journal of Water Resources Development*, 31(2), 151–160, <http://dx.doi.org/10.1080/07900627.2015.1040871>

SESSION 2

GESI, water resource management, and good governance

	Session objective To gain an understanding of the various aspects of good governance to promote collective leadership, ownership, and GESI in managing water resources
	Session duration - 1 hour
	Methodology - Brainstorming and reflection - Plenary discussion - PPT presentation
	Materials required - Projector - Screen - Laptop - Flip charts - Marker pens
	Activity process - The participants will be requested to engage in a power walk exercise based on the scenarios provided followed by presentation. - At the end of the PPT presentation, the floor will be opened for discussions and clarifications - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts

ACTIVITY 1 | GROUP EXERCISE – POWER WALK (30 min)

Step 1: Assign identities: Give each participant a slip of paper with a character profile representing diverse identities (e.g., gender, class, ethnicity, disability, livelihood). Instruct them to keep their identity secret until the end.

Step 2: Form the line: Ask participants to stand side-by-side in a straight line, shoulder to shoulder, facing the same direction.

Step 3: Explain the rules: You will read a series of statements. If the statement is true for their character, they take one step forward. If false, they take one step backward. If not sure or not relevant, they remain in place.

Step 4: Read statements: Share 10–15 statements related to access, rights, and opportunities. Allow time after each statement for participants to move. A few examples of statements are below:

- I can fetch water daily.
- I can access spring water sources without asking anyone.
- I can participate in meetings and discussions related to springs management.
- I have a say in how spring water is managed in my community.

- I know who to contact if there is any issue over water use and can raise concerns without any fear.
- I can collect water without missing school, work, or any household responsibilities.
- My house is located close to spring, so I don't have to face long walking distance.
- I do not face any discrimination while using spring or participating in water-related decision-making platforms.

Note: Adjust statements according to assigned identities.

Step 5: Observe positions: After all statements, ask participants to freeze and notice their relative positions.

Step 6: Reveal and reflect: Participants reveal their characters. Facilitate a discussion on how identity and social structures influence opportunities, highlighting patterns of privilege and exclusion.

Step 7: Key learning: Emphasise that people's social positions are shaped by intersecting factors, determining how they are valued and the opportunities they can access.

ACTIVITY 2 | PRESENTATION (30 min)

GESI-RESPONSIVE WATER GOVERNANCE

Water governance encompasses a spectrum of political, social, economic, and administrative systems designed to regulate the development, management, and provision of water resource services across various societal levels. Water, designated as a public and economic commodity, incurs costs for its distribution and in the operation and maintenance of its sources. While the principle of paying for water is justifiable, poor women and men may struggle to afford the charges. While the right to access safe and affordable water is considered a basic human right, GESI concerns receive inadequate attention in water governance structures and processes, thereby hindering GESI integration. Worse, institutions often perpetuate gender and social inequalities and neglect the practical knowledge of poor women and men by keeping them away from the decision-making systems of water management.

Power dynamics influence water allocation and technology choices, with men typically exerting more influence over resources associated with productive use. Women, often associated merely with domestic water use, thus find their needs deprioritised. Moreover, crises like frequent droughts and water scarcity further complicate the situation of access to water for the disadvantaged populations.

Community management is identified as a mechanism for effective water governance at the local level, but the assumption of inclusivity within local institutions may not always align with the reality of power dynamics among different categories of men and women striving to improve their situations. Effective water governance necessitates a comprehensive understanding of these intricate dynamics to ensure fair resource distribution and inclusive decision-making.⁶²

KEY PRINCIPLES OF GOOD GOVERNANCE

Transparency: Transparency cannot be achieved if there is no free flow of information on decisions taken, expenditures incurred, policy enforcement, and other relevant political matters. This means that information must be easily available and directly accessible to those who will be affected by such decisions and their enforcement, and to those who demand information. Transparency is critical to ensuring accountability, participation, and inclusion. The higher the degree of transparency, the higher will be the level of good governance. WUCs have the obligation of maintaining transparency at all times towards their stakeholders to ensure that the water services they depend upon are not compromised at any given time.

Accountability: Accountability is a key requirement of good governance. It means that administrators and administrative bodies must fulfil the functions and obligations of the positions they hold in serving the constituencies they are responsible for, whether they be in the government, the private sector, civil society, or media. Therefore, structures and mechanisms that are put in place such as water or irrigation users' committees must be accountable to those who will be affected by its decisions or actions. Such committees must also ensure that there is no corruption, not just of finance but also of the mind, that can cause discrimination and biases against women, Dalits, ethnic groups, Indigenous Peoples, persons with disabilities, and other disadvantaged groups. Accountability cannot be enforced without transparency and free flow and sharing of information. In other words, full disclosure and observance of the rule of law must be always practised.

⁶² UNDP. (2006). Resource Guide: Mainstreaming Gender in Water Management. Retrieved from <https://www.undp.org/sites/g/files/zskgke326/files/publications/IWRMGenderResourceGuide-English-200610.pdf>

Participation: Participation by both men and women is a key cornerstone of good governance. Participation could be either direct or through legitimate intermediate institutions or individuals that represent the interests of the people they belong to. It can either be passive or active participation. Care must be taken that such participation in structures and mechanisms that deal with watershed management or springshed management is not tokenistic. Equal attention must be paid to the timings and locations of meetings to ensure that the disadvantaged groups are able to participate in them and be part of the decision-making process. For example, holding meetings in the early mornings automatically excludes women as they will be engaged in household tasks at that time, unless the male members of the family step in to relieve them of this traditional gender responsibility; and holding meetings in distant locations denies the poor the chance to attend them as they cannot afford the transportation costs or afford to be absent from work as they are daily wagers.

Consensus: Good governance is about securing the consent of the ruled to rule for the greater common. This can only result from an understanding of the historical, cultural, and social contexts of a given society or community. This requires mediation of the different interests in society to reach a broad consensus on what is in the best interest of the whole community and how this can be achieved. Therefore, women and people who rely on spring water must be consulted before taking any actions regarding the provisioning and servicing of this water as it would have a profound impact on their daily lives.

Rule of law: An overarching condition of good governance requires fair legal frameworks that are enforced impartially. It also requires full protection of human rights of all sections of the population. This means that laws and regulations must be in place to prevent overexploitation or wanton extraction of water by the private sector for profit; indeed, such exploitation has led to reduced flow and water quality issues in the HKH region, thus imperilling agricultural production, livelihoods, and health of the mountain people.

Effectiveness and efficiency: This means that processes and institutions produce the results or deliver services that meet the basic needs of society while making the best use of the resources at their disposal. This also entails the sustainable use of natural resources and the protection of the environment, which means that governments must formulate GESI-responsive acts and policies to promote and conserve springs in the HKH region as it is the lifeline of millions of people living in the region.

Equity: This relates to reducing inequalities through affirmative actions in favour of the poor, weaker, and vulnerable groups so that all men and women have equal opportunities to improve or maintain their well-being. For example, the user fee levied on water services may not be affordable for the poorer sections of the society, thus having a negative impact on their well-being. Ensuring universal accessibility and affordability means that concessions/compensations must be in place for those who cannot afford to pay the user fees.

Inclusiveness: The entire system must operate in a manner that is fair and just and where excuses are not made for exclusion based on one's sex, gender, caste, class, race, religion, geographical location, language, etc. Historically disadvantaged groups such as women, Dalits, ethnic minorities, Indigenous People, persons with disabilities, and the other disadvantaged groups must feel that they have an equal stake and should experience an adequate flow of benefits to ensure the legitimacy of the State. Water is life, and therefore, conscious efforts must be made to remove the religious, cultural, and social norms that perpetuate discrimination and exclusion from sharing equally in the distribution and benefits of water services.

Transformative: Doing business as usual does not lead to eliminating centuries-old practices of discrimination, inequality, and injustice. Good governance involves redressing historical disadvantages and uprooting patriarchal values and norms that have oppressed women, Dalits, and other disadvantaged groups. Legislation and policies that seek to remove structural and

cultural barriers to uproot oppressive practices are as important as eliminating practices that perpetuate gender inequality based on religious dictates and cultural hegemony. Egalitarian organisational practices must be encouraged so that people are reformed to adopt a new culture that promotes gender equality by recognising the discriminatory and unjust nature of traditional gender roles and responsibilities that curb women from participating fully in public life. WUCs must ensure the equal participation of women and other disadvantaged groups by providing them with leadership roles and positions.

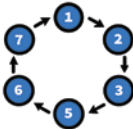
Responsiveness: It means that public administrators and administrative bodies must be proactive in responding to the specific

needs and demands of citizens in a timely and responsible manner. Institutions should not have cumbersome processes that exhaust the patience of the stakeholders, generating mistrust and animosity, but rather solicit advice from citizens and respond to their requests without unnecessary delays. As for committees on water and irrigation, they must act promptly to address the grievances related to water issues so that all groups feel respected and valued as an integral part of society.

It is important to note that women's leadership in springshed management leads to realistic and equal outcomes through GESI-responsive interventions that are backed by a gender-responsive budget to achieve gender equality.

SESSION 3

GESI-responsive water policies

	Session objective To gain an understanding of the policies related to water from a GESI perspective and to emphasise the need for GESI-responsive policies
	Session duration - 1.25 hours
	Methodology - PPT presentation - Group work exercise
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens
	Activity process - The facilitator will display the PPT presentation - At the end of the PPT presentation, the floor will be opened for discussions and/or clarification of concepts - The facilitator will form five groups for group work exercise and request each group to appoint a moderator for the group discussions, a timekeeper to keep track of the time, and a rapporteur/presenter to present the group work (four minutes per group) - Copies of case study on Nuwakot, Nepal, will be distributed, and based on this case, the groups will discuss some of the most enduring GESI issues that act as structural and cultural barriers to equal access to and control over spring water resources. - After 20 minutes of the group work exercise, the groups will present their GESI-responsive policy recommendations - The facilitator will summarise the group work and thank the participants - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts - Copies of the case study on Nuwakot, Nepal

ACTIVITY 1 | PRESENTATION (30 min)

Over the past few years, there have been significant efforts by the governments in the HKH region to address GESI and water issues. This is evident in the formulation of GESI-aware and GESI-responsive policies related to water listed in the table below. However, although such policy pronouncements are in line with international commitments, gaps in implementation do not

adequately address gender and social inequalities in the water sector.⁶³ In many cases, these policies may not be followed through with development planning and budget allocations, leading to gender evaporation of policies in the implementation process.

TABLE 4

GESI INTEGRATION IN THE KEY WATER POLICIES IN THE HKH COUNTRIES⁶³

Country	Key water policy	GESI integration	Ranking in GESI integration continuum
AFGHANISTAN	Afghan Water Law 2009	While the legislation recognises water as a fundamental human right and emphasises integrated approaches through sectoral coordination, stakeholder participation, and interconnected water management, it also acknowledges that women are disproportionately affected by water scarcity. Accordingly, it prioritises access to safe drinking water and explicitly promotes gender mainstreaming within the water sector.	GESI- aware
	National Rural Water, Sanitation and Hygiene (WASH) Policy 2016-2020	The policy and its implementation guidelines recognise women as a key stakeholder in the planning, implementation, and management of WASH initiatives. They also acknowledge existing power imbalances in water governance, noting that control over water resources is often concentrated among local elites, and emphasises that women's access to water sources should not be restricted.	GESI- aware
BANGLADESH	Bangladesh Water Act 2013	The Act serves as the key framework for the integrated planning, coordination, and management of the country's water resources. It also acknowledges the water rights of economically disadvantaged and marginalised groups, promoting more equitable access to water resources.	GESI- aware
	National Water Policy 1999 (revised 2000)	The policy highlights the importance of addressing the needs of women and disadvantaged communities by promoting gender equity, social justice, and strengthening their knowledge and capacities.	GESI- aware
BHUTAN	Water Act of Bhutan 2011	The Act adopts an equity- and rights-based approach to water governance and promotes community involvement through local water users' associations. However, it does not recognise the differential water-related needs of women and men, nor does it mandate equal representation of both genders within these community institutions.	GESI- unaware

⁶³ Goodrich, C. G., Hussain, A., Pasakhala, B., Bano, K., Bhuchar, S., Chitale, V. S., Bisht, S., Bastola, A., & Silpakar, S. (2022). State of gender equality and climate change in South Asia and the Hindu Kush Himalaya. International Centre for Integrated Mountain Development (ICIMOD).

Country	Key water policy	GESI integration	Ranking in GESI integration continuum
	Bhutan Water Policy 2007	The policy primarily focuses on the protection and conservation of water resources. Compared with issues of equity and fair distribution, these aspects receive greater emphasis, while gender equality and social inclusion are not explicitly addressed in the policy.	GESI- unaware
CHINA	China Water Law 2002	The Water Law serves as the principal legal framework guiding water governance in China. While it encourages the participation of civil society groups in water management, it does not mandate the inclusion of women in local water governance institutions. Furthermore, the legislation does not explicitly recognise women's roles as water users, managers, or stewards, and makes no direct reference to gender or women within its provisions.	GESI- unaware
INDIA	National Water Policy 2012	The policy is guided by the principles of equity, social justice, and inclusive decision-making in the allocation and management of water resources, recognising women and marginalised caste and tribal communities as key stakeholders in local water governance institutions. Although the policy seeks to improve water availability, it gives insufficient attention to equitable access and distribution, with women's water needs largely subsumed under household requirements. The policy places greater emphasis on implementation mechanisms than on addressing the structural and social barriers necessary for women's empowerment.	GESI- aware
	The Water (Prevention and Control) Act 1974	The Act establishes a framework for preventing and controlling water pollution while promoting the conservation and restoration of water resources. Although it acknowledges domestic water use, it does not explicitly consider the gendered impacts of water pollution or its disproportionate effects on women. In addition, the Act does not provide for women's representation in the composition of either the Central Pollution Control Board or the State Pollution Control Boards.	GESI- unaware
MYANMAR	National Water Policy 2015	The policy is guided by the principles of equity and social justice in the allocation and use of water resources. However, it does not explicitly promote women's participation or incorporate broader inclusive approaches to water resource management. It also fails to recognise the differential water needs, priorities, and uses based on gender roles, leaving these considerations insufficiently addressed.	GESI- unaware

Country	Key water policy	GESI integration	Ranking in GESI integration continuum
NEPAL	National Water Resources Policy 2020	The policy aims to address socio-cultural norms and practices that adversely affect women's health. It also recognises the importance of ensuring women's participation in decision-making processes across institutions responsible for the protection, development, management, and regulation of water resources.	GESI- aware
	National Water Plan (2002–2027) 2005	The policy recognises women as farmers and promotes their active participation in water resource management. It encourages women's involvement in water resource planning, operation, and maintenance, including representation in local institutions such as water users' groups. The policy also supports the formation of women's groups at the community level and promotes their engagement in rural electrification and disaster risk management, including preparedness and response to floods, glacial lake outburst floods (GLOFs), droughts, landslides, and debris flows.	GESI- aware
PAKISTAN	National Water Policy 2018	The policy is guided by the principles of equity and participatory decision-making. However, it frames women's involvement in water management largely through traditional gender roles, emphasising their responsibilities for domestic water supply and hygiene while giving limited attention to their roles in irrigation, groundwater management, and other productive uses of water.	GESI- aware

ACTIVITY 2 | GROUP EXERCISE – CASE STUDY (45 min)

- Divide the participants into five groups.
- Request each group to appoint a moderator for the group discussion, a timekeeper to keep track of the time, and a rapporteur/presenter to present the group-work (4 minutes per group).
- Distribute the copies of the case study on Nepal and request the groups to discuss how GESI-responsive policies could address GESI issues in access and control over water resources.
- After 20 minutes, request the groups to come up and present one or two strategic recommendations (25 min).
- The facilitator will summarise the group work and thank the participants.

In your groups, please discuss the following issues and provide brief responses:

1. What are some of the enduring GESI issues that act as structural and cultural barriers to equal access to and control over spring water resources in this case study?
2. Please recommend some GESI-responsive policy recommendations (short-term and long-term) for ensuring that spring-water uses and benefits are shared equally in an inclusive manner.

CASE STUDY

Nuwakot Dalits: A grim story (by Mitra Pariyar, published in The Kathmandu Post, 20 March 2024)

It was the warm and sunny morning of March 9, and our team (Dalit activists with the Caste Watch Network and a journalist) gathered at the Machhapokhari junction in Kathmandu. An electric van took us across Balaju Bypass and Tokha before we climbed the hill of Shivapuri, dotted with red rhododendrons. As we descended towards the other side of the hill, our eyes, lungs and ears sang joyfully. The scenery was great, and we had left the hustle and bustle of the capital city behind.

We were also increasingly conscious that while the physical environment had become much cleaner, the social environment was getting increasingly filthy. Caste bites harder in rural areas. An unbelievable incident associated with this caste pollution – as it were – had caused us to make this two-and-a-half-day trip to the village of Chainpur in ward number 12 of the Bidur Municipality, Nuwakot district.

Water: Superconductor of caste

It is common knowledge that access to drinking water has been a principal source of conflict between nations, people, ethnic groups, cities, villages, settlements, neighbourhoods and even households. A cruel principle and practice of many Hindu communities in South Asia and beyond has been to deny the Shudra access to clean drinking water.

In Nepal, the very definition of “low caste” – published in the 1854 Civil Code, the nation’s first written constitution – is “someone whose water cannot be used by others” – *pani nachalne jat*. In religious and cultural terms, the same principle is strongly held in society today, even though the formal laws have changed over time.

Water is considered a superconductor of “caste pollution” in our Hindu-dominated society. Caste pollution through contact with low castes is purified, for example, by sprinkling water that has been sanctified by dipping a piece of gold in it. Not everyone would practise this now, of course, particularly in towns, but the traditional belief is still strong in society.

It is commonly held that upper castes’ lineage deities and other gods will get angry if the Shudra touches their water. Many homes in Kathmandu and other towns refuse to rent their rooms or flats to the low castes because they fear the Shudra’s touch contaminating their water, mainly the water used for daily worship.

Across the swathes of the countryside, sources of water have been the principal sites of caste domination and humiliation. Even today, we hear stories of Dalits being openly excluded and humiliated, if not physically assaulted, when they attempt to share the wells and taps with other castes. Dalits are told to either use the wells and taps after other castes have used them or to drink the dirty water from these sources.

The Nuwakot story

The things happening in Chainpur village of Nuwakot District are quite extraordinary, something not seen or heard about in some of the most casteist societies of the far western and Karnali regions. This village on a dry slope suffers from an acute shortage of clean drinking water, and the municipality has done little to resolve the crisis.

A little spring in the field of a Damai (tailor) family has caused much contention in the community. It has potentially risked the life and property of the family there. This is what we had come to observe and report that day and, if possible, to resolve the dispute. We had been invited to the site by relatives and friends of the victims.

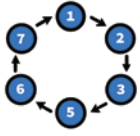
The Dalit family has collected and used fresh, clean spring water for generations. A Chhetri man wants to use it as well but not share it with the Dalit family! The Dalits are happy to construct a small reservoir and share water with the Chhetri family, but the Chhetri man does not accept this proposal. He believes using water from the same source would be ritually polluting, thus potentially offending his deities.

The upper-caste man has been using every tactic, including money and muscle, to harass the Dalit family so that he will be able to gain full control of the spring. He has tried to beat the Dalit man into submission. He has showered rocks on the Dalit home. Emboldened by his own nephew as the ward chairman, he has also filed a case in the district court, accusing the Dalits of denying him the use of the spring. He has concocted the myth that his family has used the water for decades.

The victim family is living in grave danger, but they are not going to give up easily. They have sought the help of the ward office, the local police and the local judicial committee to resolve the crisis. The Dalit couple is happy to share water with the Chhetri family, but they cannot afford to let the bully fully appropriate it.

SESSION 4

Understanding and setting up GESI monitoring system

	Session objective - To build an understanding about monitoring and what to monitor - To enhance learning about the monitoring process
	Session duration - 45 minutes
	Methodology - PPT presentation - Group work
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens
	Activity process - The facilitator will display the PPT presentation on GESI responsive monitoring - At the end of the PPT presentation, the floor will be opened for discussions and clarifications of concepts - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts

ACTIVITY 1 | PRESENTATION (45 min)

MONITORING SPRINGS THROUGH GESI LENS

Across the world, national data on drinking water is typically collected at the household level, rather than at the individual level, but some indicators take account of gender inequalities and can, therefore, be considered gender responsive⁶⁴. However, since there are only a few cases of gender-specific indicators, further work is required to develop indicators that address other dimensions of gender inequality related to drinking water. That said, there is a severe paucity of GESI-disaggregated data in relation to springs. Therefore, there is a need to collect such data and set up monitoring systems to understand the dynamics of GESI and springs, and address the challenges associated with it.

Monitoring springs through a GESI lens refers to the process of systematically observing and assessing the availability, quality, and accessibility of spring-water resources, based on GESI-specific indicators and ensuring that GESI considerations are integrated into the monitoring process right from the stage of designing the intervention. This requires assessing how the status of access to spring-water resources might differ among genders, castes, classes, minorities, persons with disabilities, and the other disadvantaged groups. It also ensures that people with disabilities and the ethnic minorities or low-income communities are included in the monitoring process and have a fair access to spring water. The collection of GESI-specific data and inclusive involvement in the data collection process further needs to culminate in policy decisions which promote GESI and address any barriers that may exist related to access and control of water resources.

⁶⁴ United Nations Children's Fund (UNICEF) and World Health Organization (WHO). (2023). Progress on household drinking water, sanitation and hygiene 2000–2022: Special Focus on Gender. Joint Monitoring Programme for Water Supply, Sanitation and Hygiene. New York: UNICEF and WHO, p. 5.

GESI-RESPONSIVE INDICATORS IN SPRINGSHED MANAGEMENT

The monitoring process should include the following GESI-responsive indicators in the case of springs:

TABLE 5	GESI-RESPONSIVE INDICATORS IN SPRINGSHED MANAGEMENT
GESI-disaggregated participation rates	Measure the percentage of women, men, and other categories involved in the decision-making bodies related to springshed management (e.g., in WUCs)
Access to and control over water resources	Quantify the percentage of women, men, and disadvantaged groups who have decision-making authority on spring-water resources
GESI-responsive infrastructure	Evaluate the existence and accessibility of GESI- responsive infrastructure at springs, such as separate bathing areas or menstrual hygiene facilities
Time saved on water collection	Calculate the average time saved per household, particularly by women and girls, due to improved access to springs, compared to other sources of water
Usage of the saved time	Assess the percentage of time saved on water collection and find out how this time is being utilised by women and girls for income-generation activities, education, or other productive pursuits
Income-generation opportunities	Measure the increase in income-generation opportunities for women and other disadvantaged groups resulting from improved access to water from springs
Training and capacity building	Track the number and percentage of women and other disadvantaged groups who have participated in training sessions or capacity-building programmes related to springshed management
Perceptions on gender equality	Conduct surveys or interviews to gauge the perceptions on gender equality among community members, particularly regarding women's participation in decision-making in springshed management
Reduction in gender-based violence	Quantify any reduction in gender-based violence incidents related to water collection or access since the implementation of springshed management interventions
Representation in leadership roles	Evaluate the proportion of women and other disadvantaged groups holding leadership positions within springshed management structures, compared to their numbers in the community

COLLECTING BASELINE AND ENDLINE DATA

Collecting GESI-sensitive baseline and endline data in springshed management involves careful planning, inclusive methodologies, and the incorporation of GESI perspectives throughout the data-collection process.

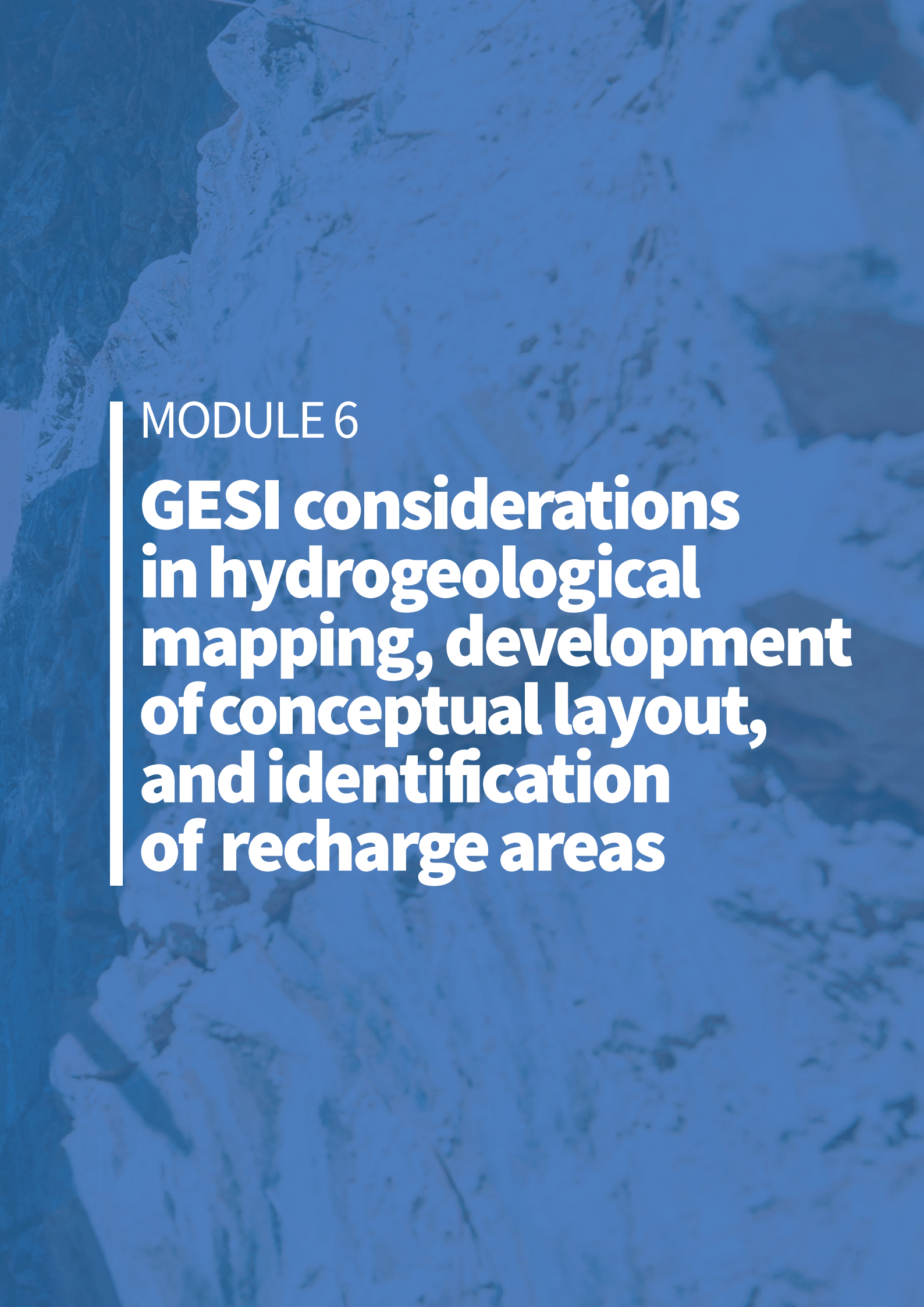
This can be achieved by ensuring the following as mentioned below:

- **Stakeholder mapping:** Identify key stakeholders, including women, men, youths, elderly persons, people with disabilities and disadvantaged communities, within the springshed management area.
- **GESI analysis:** Conduct a GESI analysis to understand existing power dynamics, social norms, discriminatory practices and

inequalities within the community. This analysis should inform the selection of indicators and data-collection methods.

- **GESI-sensitive indicator selection:** Choose indicators that capture both gender-specific and socially inclusive aspects of springshed management, such as access to and control over water resources, equal sharing and benefits, decision-making, participation, workload- distribution, and changes in perceptions and behaviours towards women and disadvantaged groups and reduction in traditional harmful practices (domestic violence, sexual violence, dowry system, child marriage, trafficking, etc).



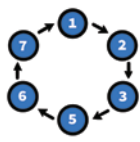


MODULE 6

GESI considerations in hydrogeological mapping, development of conceptual layout, and identification of recharge areas

SESSION 1

Engaging communities in hydrogeological mapping

	Session objective - Understand importance of engaging communities in hydrogeology for springshed management. - To build an understanding about monitoring and what to monitor
	Session duration - 30 minutes
	Methodology - PPT presentation - Brainstorming and reflection - Plenary discussion - Experience sharing
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens - Whiteboard
	Activity process - The PPT on ‘Engaging communities in hydrogeological mapping’ will be presented. - Referring to the trainer’s manual, the facilitator will encourage the participants to share their knowledge and experiences on the topic in the context of their countries.
	Handouts

ACTIVITY 1 | PRESENTATION (30 min)

Hydrogeology, which studies the flow and movement of groundwater through aquifers and how it interacts with the surrounding soil and rock is an important branch of science to find sustainable sources of water. This, too, must incorporate communities, including women and youths' knowledge about spring water and use it as NbS for spring management. Women and youths can be trained in the basics of hydrogeology so that they can monitor their springs and also understand the science behind spring discharge and recharge. In this way, in the role of para-hydrogeologists, women and youths can complement the work of hydrogeologists. There are some examples of good practices by community-based organisations and state governments in training women as para-hydrogeologists. For instance, in the water-parched district of Bundelkhand, Uttar Pradesh, Jal Sahelis is a network of women volunteers who have been trained in water management – from repairing handpumps to reviving traditional water bodies. Women have also been trained in Rajasthan and Gujarat to work as bhujal jankars, or para-hydrogeologists, who monitor groundwater levels and water quality under the Atal Bhujal Yojana.⁶⁵

Conduct basic to advanced training to community members on hydrogeology, helping them understand spring flow, recharge processes, and the science behind springs. The process builds confidence and long-term engagement of women and youth in springshed management. A key focus to be on training women to be para-hydrogeologists, which has several benefits at the individual, household, and community levels, national and global levels (listed below). It can also have a positive effect across the entire spectrum of water management (monitoring, managing, and sustaining).

- At the individual level, it promotes women's self-employment in water management, thereby enhancing their voice and agency.
- At the household level, it leads to an improved quality of life through greater purchasing power. Evidence suggests that when women's economic status improves, they invest in the education and health of their children.

- At the community level, it would serve to strengthen water security in rural and urban areas.
- At the country level, increased employment of women would increase the revenue of governments through expansion of the tax base.
- Globally, jobs in the management of water resources are defined as green jobs as they contribute to preserving or restoring the quality of the environment.

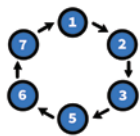
Conducting transect walks with community women and men during hydrogeological visits help better understand how different community members perceive springs, identify local water issues, and observe gender-specific responsibilities, challenges, and knowledge gaps. Importantly, the process of identifying spring recharge zones must be guided by community priorities to ensure relevance, ownership, and sustainability. While hydrogeological mapping determines the scientifically accurate recharge area, successful implementation depends on whether the community's land-use practices and priorities align with these findings. If the scientifically identified recharge zone conflicts with community needs or land-use patterns, the intervention may face resistance or failure, even if technically sound.

It is equally significant to encourage the inclusion of women in hydrogeology fields to strengthen gender-responsive approaches in springshed management. Encouraging the inclusion of women in hydrogeology is crucial for strengthening gender-responsive approaches in springshed management. Women's participation should be actively ensured in hydrogeology training provided to local government officials, researchers, practitioners, and community members engaged in planning and implementing springshed management. Having women professionals/hydrogeologists involved in community meetings, orientations, and data collection can foster more open dialogue with women community members, as they may feel more comfortable sharing their concerns and insights. Meetings, field demonstrations, and mapping activities should be conducted at times and locations suitable for women and marginalised groups (e.g., avoiding household workload peak times).

⁶⁵ Kumar, S. (2013). Women and water: Leveraging the potential of green Jobs. <https://www.orfonline.org/expert-speak/women-and-water>

SESSION 2

GESI and hydrogeological challenges in spring revival and springshed management

	Session objective - To learn from the participants about the GESI dimensions of hydrogeology such as social and governance challenges impacting spring revival and springshed management
	Session duration - 1 hour
	Methodology - Group work followed by plenary discussion
	Materials required - Screen - Projector - Laptop
	Activity process - The participants will be divided into groups of at least five groups depending on the number of participants. - The groups will be given guiding discussion questions to identify and discuss various social and governance challenges impacting spring revival and spring shed management. - The groups will be asked to reflect on previous modules and fieldwork to map out the challenges. - After the group discussion, the session will go into plenary.
	Handouts

ACTIVITY 1 | GROUP EXERCISE – PLENARY EXERCISE (60 min)

The groups will be divided and asked to discuss the challenges in the gender aspects of water management and hydrogeology.

Provide them with the following broad guidelines:

1. Outline the issues of GESI and water management in their field of work.
2. Identify the challenges of involving communities, including women and marginalised groups, in hydrogeological mapping and in the identification of spring-recharge areas.
3. Explain the gains of involving communities in hydrogeological mapping and in the identification of spring-recharge areas.
4. Describe the experiences of any challenges faced in hydrogeological mapping and in the identification of spring-recharge areas and cite any best practices.
5. Make recommendations for enhancing communities, including women and youths participation in water management and hydrogeological mapping to address gender stereotypes.



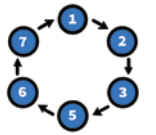


MODULE 7

Field visit

SESSION 1

Preparation for field visit

	Session objective - To prepare for the field visit
	Session duration - 30 minutes
	Methodology - PPT presentation - Orientation for field visit
	Materials required - Screen - Projector - Laptop
	Activity process - The participants will be divided into five groups and given instructions on undertaking field visits - All groups will engage in transect walks and will engage in FGDs using resource mapping or Venn diagram around the springshed areas
	Handouts - Data collection format

ACTIVITY 1 | FIELDWORK INSTRUCTIONS (30 min)

Divide the participants into five groups. Provide the field orientation as follows:

The following day, participants will visit the field in their respective groups to collect data and information from community members.

For transect walk: Each participant in the group will be responsible for observing and then asking questions to the community members. The participants should feel free to solicit information through follow-up questions if they feel the required information has not been forthcoming.

FGD groups: The groups will divide the roles as to who will be the lead for initiating the questions, who will be responsible for mapping the resources, and who will note down the community members' responses. The group members should feel free to solicit information through follow-up questions if they feel the required information has not been forthcoming.

Ethical concerns: Request for permission for capturing pictures and making audio and video recordings. Inform the community women and men that the data and information collected will be used only for the purpose of the training. Emphasise that the privacy and dignity of all the community women and men taking part in this exercise will be protected. No attributions will be made to any individual for expressing her/his views and opinions in the process of data and information collection.

The goal of the field visit is to equip the participants to undertake a gender and social analysis by examining the following factors:

- **Gender roles** – Who (which women, which men, which girls, which boys) does what, where, when, and with whom? Who bears the burden?
- **Gender divisions of labour** – Who does what work?
- **Access and control of resources** – Who gets what? Who has access to specific resources/services and who has the decision-making power over its use? Who benefits and who loses? What are the constraints that hinder access? In addition, look at factors such as caste, class, ethnicity, religion, age, location, language, socio-economic and educational conditions.
- **Women's and men's need** – What are the differences between women's and men's needs (both practical and strategic gender needs)? Who needs what type of services/facilities, and do opportunities exist to meet the actual needs? What are the constraints that hinder access to these services and goods?
- **Power relations** – Who makes the decisions?

This exercise will also help to identify:

- The disadvantaged members in a given population
- The nature of their disadvantage
- The structural causes of their disadvantage
- The factors that maintain the disadvantage
- This step will yield information on the number of houses that depend on spring, the quantity of water collected from a spring, the use of spring water, perceptions of water quantity and quality (now and the past), ease of water collection and rules and regulations and institutions involved in spring management and conflict management approaches, among others

TABLE 6

DATA AND INFORMATION COLLECTION

Profile and context of the community	- Solicit information on GESI-disaggregated data by categories of sex, socio-economic status, age, religion, language, etc.) - Prior to undertaking the field exercise, in consultation with community women and men, draw a resource map either on a flip chart or on the ground to locate common resources such as land, water, forest, irrigation systems, and grazing grounds, as well as to evaluate the status of health, economy, education, etc. - Collect information on the resources shared by the community in general. - Who are the users of springs? (Number or percentage of women and men from different categories.) - Number of houses that depend on the springs - How much time does it take to reach the springs?
Cultural beliefs	- What are some of the religious beliefs/cultural beliefs/customs that are associated with springs in your community? - How do these cultural beliefs (e.g., taboo against castes or groups of people) influence the practices of communities in using and managing springs?
Springshed management practices	- What are some of the historical/traditional methods of managing springsheds? - Who makes the decisions on springshed management? (Number or percentage of women and men from different categories.) - Who benefits from these decisions? Who loses? - What governance systems related to springs are in place in the form of institutions and mechanisms to ensure access, maintenance, and accountability? - Are there traditional beliefs or practices that either encourage or discourage the active participation of women in decision-making related to springshed management? - Have there been any changes in the traditional methods of managing springsheds? - If yes, what are the reasons for these changes?
Gender roles and water	- What are some of the social norms and practices that have defined the needs of different genders in terms of water resources? - Who bears the burden and in what ways? - What are the different needs of water for women and men?
Quality and uses of spring water	- The quantity of water collected from a spring - The use of spring water - Perceptions of water quantity and quality (now and the past)
Community involvement and management	- Institutions involved in spring management - Have there been any conflicts related to the flow and distribution of common resources? - How were those conflicts resolved?
Access and control of resources	- Ease of water collection and rules and regulations - Who has access to specific resources/services/programmes related to water? (Number or percentage of women and men from different categories.) - Who benefits from access to these resources? In what ways do those individuals/groups benefit? (Number or percentage of women and men from different categories.) - Who loses as a result of inaccessibility to these resources? In what ways do those individuals/groups lose? (Number or percentage of women and men from different categories.) - How are different groups (women, men, and disadvantaged groups) impacted when springs dry up or have reduced flow? (Number or percentage of women and men from different categories.) - What do they do in such situations (coping mechanisms)?

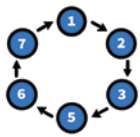
Environmental impact	- Have there been any changes in the discharge and flow of spring water? - Are those related to the environment or some other factors? - What could be the causes for the changes in discharge and flow of spring water?
Government policy and non-governmental interventions	- Are you aware of government policies and regulations related to water and springshed management? - If so, what are they? - Do they address gender and social inclusion? Or do they reinforce gender inequality and exclusion? - Are there any interventions or projects by non-governmental organisations in water or springs? - If yes, what are they? - Do they consult your community? - What has been the outcome of such interventions?
GESI strategic interest recommendations	- What are some of the measures that can be taken to sustain common resources for the good of the community? - What are your recommendations for reviving and sustaining the springs in your area? - What are your recommendations for enhancing community participation and representation in decision-making in springshed management, especially that of women and other disadvantaged groups (Dalits, ethnic and indigenous communities, religious minorities, the poor, persons with disability and the other disadvantaged groups)? - Are there specific policy recommendations you would like to propose to support the sustainable management of springs, particularly in relation to GESI? - Based on your experience, do you have recommendations for how government organisations can improve their engagement with the community in watershed management, WASH, and spring-revival initiatives, particularly in addressing gender and social inclusion?

SESSION 2
Field visit



SESSION 3

Field visit report preparation and presentation

	Session objective - To produce a comprehensive report that analyses GESI in the socio-economic, cultural, institutional, and governance aspects of water use
	Session duration - 1.5 hrs
	Methodology - Gender and social analysis - Report writing - PPT Presentation - Plenary discussion
	Materials required - Screen - Projector - Laptop - Flip charts - Marker pens - Thumb pins - Whiteboards
	Activity process - The participants will undertake a gender and social analysis of the data and information collected from the field. - They will prepare a report in the provided format. - The participants will present the findings of the field visits and provide GESI strategic interest recommendations based on the findings of the gender and social analysis data and information collected from the field. - This will be followed by a plenary discussion.
	Handouts - Reporting format

ACTIVITY 1 | GROUP EXERCISE – REPORT PREPARATION (60 min)

- Make copies of the reporting format and distribute to the five groups.
- Inform the participants that they should be able to undertake a gender and social analysis based on the data and information collected from the field in order to support the development of strategic gender interest recommendations for enhancing women's role in the springshed management.
- Inform them that they have two hours to prepare the report and the presentation. Request them to appoint a moderator for the group discussion, a timekeeper to keep track of the time, and a reporter/presenter to prepare the report in the following format.

TABLE 7

FIELD VISIT REPORTING FORMAT

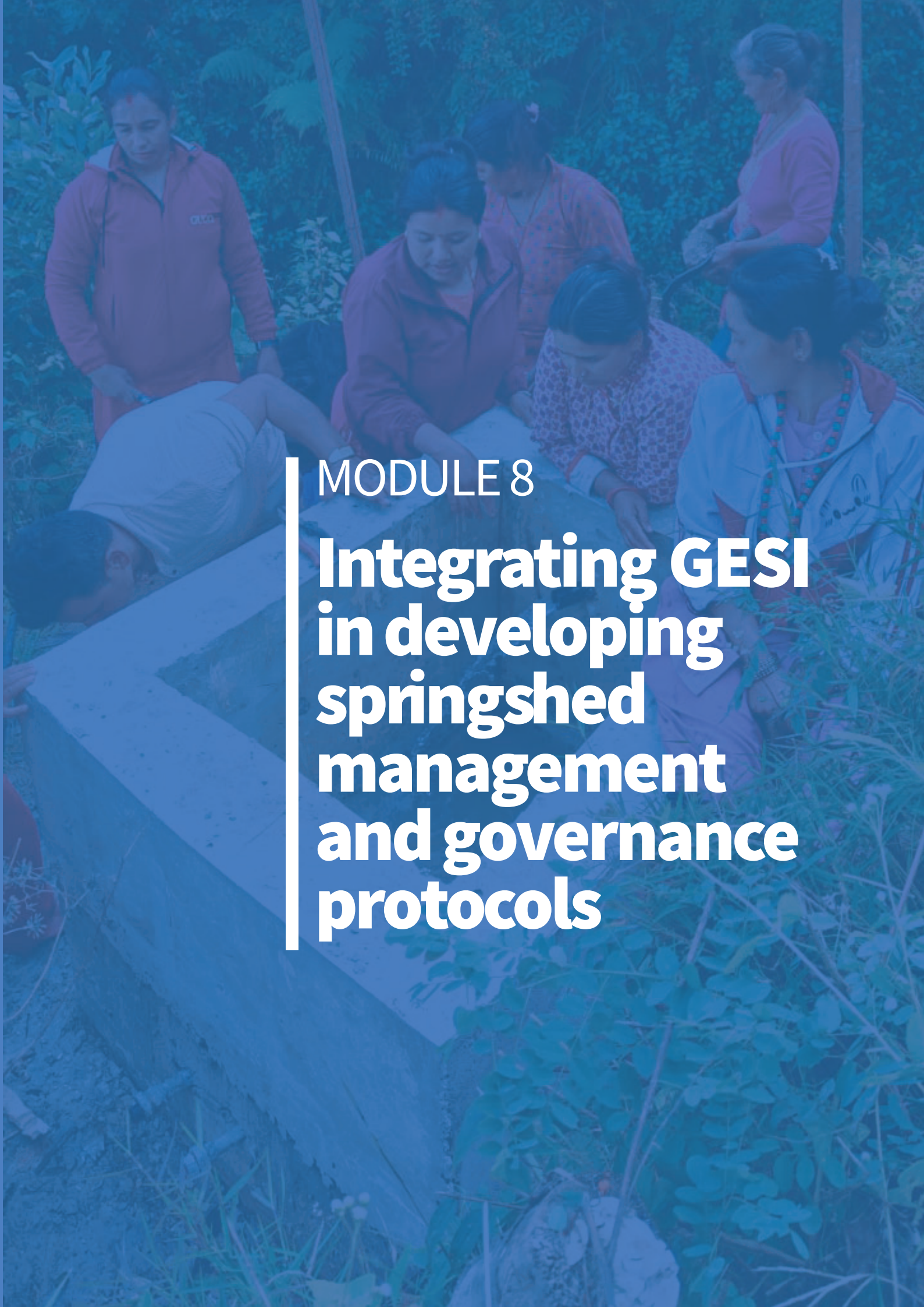
Profile and Context of the Community	
Cultural Beliefs	
Springshed Management Practices	
Gender Roles and Water	
Quality and uses of spring water	
Community Involvement and Management	
Access and Control of Resources	
Environmental Impact	
Government Policy and Non-governmental Interventions	
GESI Strategic Interest Recommendations	

ACTIVITY 2: GROUP EXERCISE-REPORT PRESENTATION (30 min)

Invite the groups to make the group presentations. After each group's presentation, initiate a plenary discussion to reflect on the findings and recommendations.

At the end of the session, thank all the participants for making the presentations and recommendations. Reinforce the concept that GESI-responsive interventions require GESI analyses (as they have just done) to identify the underlying causes of gender inequity and exclusion; it is only then that women and men from different categories can enjoy equal rights and equal opportunities to develop their potential. Such analyses allow for the identification of the cultural and structural barriers to designing

interventions that can transform unequal gender and power relations. It also looks at key vulnerability factors such as gender, age, socio-economic status, caste/ethnicity, religion, and location that perpetuate discrimination and gender stereotyping. A key part of this process is consulting with the stakeholders and beneficiaries. By identifying the issues, needs, priorities, and solutions from their perspectives, the participants would have provided strategic recommendations that are not only GESI responsive but also GESI-transformative in the long run.

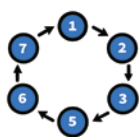


MODULE 8

Integrating GESI in developing springshed management and governance protocols

SESSION 1

GESI integration into springshed management and governance protocols

	Session objective - To enable participants to understand the importance of integrating GESI into springshed management and governance, and to apply GESI concepts in analysing real-world cases and developing inclusive recommendations.
	Session duration - 1 hr
	Methodology - PPT presentation - Group work exercise - Plenary discussion
	Materials required - Laptop - Projector screen - Flip chart - Marker pens - Thumb pins - Whiteboards
	Activity process - Participants will be divided into 5 groups and given instructions on conducting group-work exercise - Case studies will be distributed to the groups - After engaging in a 30-minute group work exercise the groups will make their presentations (5 minutes per group) which will be followed by a brief plenary discussion - The facilitator will summarise the discussions of the group-work findings and recommendations - At the end of the PPT presentation the floor will be opened for discussion and/or clarifications concepts - Referring to the trainer's manual, the Facilitator will ensure that the session is interactive
	Handouts - Case study

ACTIVITY 1 | GROUP EXERCISE - CASE STUDY (60 min)

This group work will engage in a case given below to reflect on following questions which will help reflect the importance of integrating and considering GESI in springshed management and governance protocol:

QUESTIONS FOR GROUP DISCUSSION:

I. UNDERSTANDING COMMUNITY ENGAGEMENT

1. What challenges were the community facing due to the declining spring discharge?
2. Why was it important for the initiative to emerge from within the community rather than from outside experts alone?
3. How did community mobilisation strengthen ownership of the springshed work?
4. How did men's attitudes initially influence the possibility of action, and what changed over time?

II. UNDERSTANDING GESI DIMENSIONS IN SPRINGSHED MANAGEMENT

1. How did gender roles influence who recognised the problem first and why? What motivated the women to eventually organise and take collective action?
2. What social barriers (e.g., norms, power dynamics) initially prevented action?
3. In what ways did integrating women's perspectives result in more effective springshed solutions?

III. LESSONS FOR GESI-RESPONSIVE SPRINGSHED MANAGEMENT

1. What does this story teach us about the importance of engaging women and marginalised groups in springshed management?
2. How can participatory approaches ensure that solutions address the needs of those most affected by water scarcity?
3. What GESI-sensitive strategies can other springshed initiatives learn from this case (e.g., inclusive mobilisation, local champions, partnership-building)?

Case study: SALGA'S WOMEN WATER WARRIORS

Jal Sahayak, People's Science Institute (PSI), working in Kalsi, Dehradun

Key strengths – Community mobilisation, empowering women

Salga, a beautiful, hill village in the Dehradun district, has three water sources. Chargad is the main spring that is used by most villagers for their domestic needs. Over the years, its discharge decreased and it would take long time to fill a bucket of water from this source. This left the women with no time for household chores, personal care, and family. It would also lead to petty quarrels at home. Belonging to this village, Nirma decided to work for this cause to help myself and the other women in the village. She had heard about the PSI's work on spring rejuvenation, which helps to increase the spring discharge. She approached the organisation and requested the team to visit my village and meet the gram pradhan (village head). But the men in the village were adamant and opined that the spring discharge can never be enhanced. It is an impossible task, and the villagers should not be given false hopes, they said.

Although Nirma was disappointed by their attitude, she did not give up and decided to motivate the women. She started meeting and talking to the women as they are the ones who are primarily responsible for fetching water. After a series of meetings over three months, the women gathered courage. They decided to work under the guidance of the PSI team. They started digging trenches. This motivated the men too and they also came to help the women. Within a few days, more than 500 trenches were dug.

A significant increase in spring discharge was noticed after the rain that year. This excited the women. The next task was to bring this spring water, located several kilometers uphill, close to their homes through a pipeline. For this, she approached another Dehradun-based organisation, HESCO. They responded positively and provided support for the pipeline work.

The efforts of the women of Salga village made the seemingly impossible possible. Now, there is a pipeline, attached to the spring that is yielding a sufficient amount of water. Enhanced water flow is not just meeting domestic needs but is also being used for minor irrigation. This is a story of women's empowerment, yielding a fruitful result on the ground. If we don't stand up and take action ourselves, others will not understand our problem. We must not think that there is no solution to a problem. Women can be water warriors and change makers.



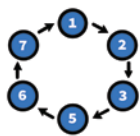
The background is a solid blue color with a subtle, organic texture that resembles a close-up of a forest floor or a natural surface. A thin, white vertical line is positioned to the left of the text, starting from the top of the 'MODULE 9' text and extending downwards past the main title.

MODULE 9

Measuring the GESI impact of spring revival activities

SESSION 1

GESI impact evaluation for spring revival activities

	Session objective - To familiarise the participants on GESI- impact evaluation
	Session duration - 1 hr
	Methodology - PPT presentation - Group-work exercise
	Materials required - Laptop - Projector - Screen - Flip chart - Marker pens
	Activity process - The facilitator will display the PPT presentation on GESI-impact evaluation - Referring to the trainer's manual, the facilitator will ensure that the session is interactive - At the end of the PPT presentation, the floor will be opened for discussion - The facilitator will divide the participants into give groups for a 30-minute group work on collectively developing the governance protocol - Each group will be requested to appoint a moderator for the group discussions, a rapporteur to report back to the plenary, and a timekeeper to keep track of the time - At the end of the 30 minutes, the groups will be requested to make their 5-minute presentation at the plenary - The participants (other than the group presenting the group work) will be requested to provide critical feedback on the presentation from a GESI perspective - After all the group presentations are completed, the facilitator will thank the participants for coming up with strategic commitments - Referring to the trainer's manual, the Facilitator will ensure that the session is interactive
	Handouts Format for developing governance protocol

ACTIVITY 1 | PRESENTATION (15 min)

GESI-IMPACT EVALUATION OF SPRINGSHED INTERVENTION

Impact evaluation entails a systematic assessment of the effectiveness, efficiency, relevance, sustainability, and impact of a project, programme, or intervention. It involves collecting and analysing data to determine whether the intended objectives have been achieved and to identify the strengths, weaknesses, lessons learnt, and opportunities for improvement. Such an evaluation is essential for accountability, learning, decision-making, and to ensure that resources are being used effectively and efficiently. Conducting a GESI-responsive evaluation in springshed management involves systematically assessing the impacts of interventions on different gender and social groups within a community. This process ensures that the management of springsheds is equitable, inclusive, and responsive to the diverse needs and realities of the community members.

Effectiveness: Conducting a thorough analysis of the social, economic, and cultural contexts in which a springshed management intervention is taking place helps in identifying the existing gender disparities and social inequalities that are impacting the access to and control over water resources. An evaluation of efficiency in water resource management is about whether women and men have equitable access to water, whether they participate equally in the decision-making processes, and whether they benefit equally from the intervention. It is also about determining whether the intervention has effectively addressed social inequalities and ensured the inclusion of disadvantaged groups such as ethnic minorities, persons with disabilities, and low-income communities. Besides, it is about evaluating whether these groups have been engaged in the planning, implementation, and decision-making processes.

Efficiency: This involves determining whether the capacity-building efforts have been cost-effective in empowering women and other disadvantaged groups to participate in spring-revival and springshed management activities. It is also about

evaluating whether resources have been allocated efficiently to achieve GESI objectives. Besides, it is an assessment of whether investments in springshed management have resulted in tangible benefits for women, other disadvantaged groups, and the broader community.

Relevance: This entails evaluating whether gender and social inclusion considerations have been integrated, and the intervention has been responsive to the specific needs, preferences, and priorities of different sections of the population. It is also about determining whether the intervention has been culturally aware and respectful of local norms and practices.

Sustainability: This involves assessing whether GESI-responsive policies and practices have been institutionalised to ensure the sustainability of spring-revival and springshed management initiatives. It is about evaluating the extent to which women and other disadvantaged groups are involved in the decision-making processes and whether they feel a sense of ownership over spring-water resources. This evaluation process engages with diverse stakeholders, including women, men, youth, elders, persons with disabilities, and disadvantaged groups such as Dalits, religious minorities and the other disadvantaged groups. Consultations with these groups ensure that their perspectives and experiences are considered, thereby fostering a sense of ownership and thus, sustainability.

Impact: Evaluation of impact entails measuring the results of an intervention in terms of gender equality outcomes, such as improved access to water, increased participation of women and other disadvantaged groups in decision-making processes, and enhanced economic opportunities for women and other disadvantaged groups. Assessing the impact of an intervention in terms of social inclusion outcomes, such as reduced disparity in access to resources, decrease in violence, decrease in conflict over water resources, equal sharing of benefits, and increased empowerment of disadvantaged groups, is an important dimension of measuring

change. Evaluating whether an intervention has contributed to the building of a more inclusive and resilient community is an important indicator of substantive change.

By integrating GESI considerations into the evaluation processes, organisations can ensure that springshed management interventions are effective, efficient, relevant, sustainable, and have a transformative impact on gender-equality outcomes.

WHAT IS A GOVERNANCE PROTOCOL?

Governance is about policies, institutions, structures, processes, decision-making, resources (tangible and intangible), and most importantly, power relations that deliberately include or exclude groups of men and women for better or for worse. Gender equality cannot

be achieved when gender biases and exclusion remain entrenched in institutions and in political, economic, legal, social, and development processes. Basically, a governance protocol provides a set of rules to be followed for achieving organisational or interventional objectives.

GESI INTEGRATION PROTOCOL FOR SPRINGSHED MANAGEMENT

After the deliberations on what GESI means and how to integrate GESI considerations in spring revival and springshed management, the discussions should veer towards developing a GESI- integrating governance protocol for springshedmanagement. Such a protocol has to be prepared collectively in the following activities:

ACTIVITY 2 | GROUP EXERCISE - DEVELOPING GOVERNANCE PROTOCOL (45 min)

- Divide the participants into five groups. Request each group to appoint a moderator for the group discussions, a rapporteur to report back to the plenary, and a timekeeper to keep track of the time.
- Remind the groups that they have just 30 minutes to develop the protocol based on the format given in table below.
- Inform them that they will be given just 5 minutes to present their group work.
- At the end of 30 minutes, request the groups to make their presentations in plenary.
- Request the participants (other than the group presenting the group work) to critically review the presentation from a GESI perspective and provide their feedback.
- After all the group presentations are completed, thank the participants for coming up with strategic commitments.

TABLE 8

FORMAT FOR DEVELOPING GOVERNANCE PROTOCOL

Protocol area	Integrating commitment
Equity	
Inclusion	
Participation	
Decision-making	
Research and documentation	
Defining roles and responsibilities	
Budget and resources	

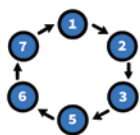


MODULE 10

**Action plan
for GESI
integration in
spring revival
interventions**

SESSION 1

Develop action plans on GESI-responsive spring revival and springshed management

	Session objective - Develop GESI-responsive spring-revival and springshed management action plans based on the findings and recommendations of the field visit
	Session duration - 1.5 hours
	Methodology - Group-work exercise
	Materials required - Action Plan Format - Flip chart - Marker pens
	Activity process - The participants will be divided into five groups - Each group will appoint a moderator for the group discussions, a rapporteur to report back to the plenary, and a timekeeper to keep track of the time - The participants will identify the issues they want to address based on the findings of the field visit and discuss in their respective groups the strategic actions that they would like to take to address the issue/s - They will develop the action plan based on the format provided in 45 minutes - Referring to the trainer's manual, the facilitator will ensure that the session is interactive
	Handouts - Copies of action plan format

ACTIVITY 1 | GROUP EXERCISE (90 min)

- The facilitator will divide the participants into five groups.
- Explain briefly about the action plan format and provide clarifications if needed on how to go about developing the plan.
- Request each group to appoint a moderator for the group discussion, a rapporteur to report back to the plenary, and a timekeeper to keep track of the time.
- Remind the groups that they have just 45 minutes to develop the action plan.
- Inform them that they will be given just five minutes to present their action plan, so it would be strategic to address the main issue or issues they have identified from the field visit.
- The groups will present their forward-looking action plans in five-minute presentations at the plenary. (25 min)
- The participants (other than those from the group presenting the group work) will be requested to provide critical feedback from a GESI perspective on the presentation

Goal:

Objective:

Indicators:

TABLE 9

ACTION PLAN FORMAT

Steps	Project design	Implementation	Monitoring	Who	Risk
	What do you want to mainstream?	What are the most critical components (of practical GESI needs and strategic GESI interests) that need to be prioritised for implementation?	What tools will be used?	Which men and women will be involved? Who is it for?	What might stop it from happening?
1.					
2.					
3.					
4.					
5.					

Annexe I: Agenda

Day	Time	Session	Duration	Module/ Topic
Day 1	9:15-9:30	Registration	15 min	Registration of participants
	9:30-9:45	Inaugural Session	15 min	Welcome remarks
	9:45:10:00			TEA/COFFEE BREAK
	10:00-10:30	Opening Session	30 min	Introductions
				Code of conduct
				Pre-test assessment
	Module 1: Introduction to the six-step protocol for reviving springs in the HKH			
	10:30-11:00	Session 1	30 min	Understanding the six-step protocol for reviving springs in the HKH
	Module 2: Introduction to Gender Equity and Social Inclusion (GESI)			
	11:00-1:00	Session 1	120 min	Establishing a common understanding of GESI
	1:00-2:00	LUNCH		
	2:00-3:15	Session 2	120 min	Gendered behaviours and consequences
	3:15-3:30	TEA/COFFEE BREAK		
3:30-4:15	Session 2 continued.			
4:15-4:45	Session 3	30 min	Water and gender equality	
Day 2	9:15-9:30		15 min	Recap of 1st Day’s proceedings
	Module 3: Comprehensive mapping of springs and springshed from a GESI perspective			
	9:30-10:00	Session 1	30 min	Significance of springs in the HKH region
	10:00-10:30	Session 2	30 min	Environmental challenges impacting springs and gendered implications
	10:30-10:45	TEA/COFFEE BREAK		
	10:45-11:30	Session 3	45 min	Spring mapping and preliminary data collection
	Module 4: GESI considerations in setting up a data monitoring system			
	11:30-1:00	Session 1	90 min	Importance of women and daily users of springs as data collectors
	1:00-2:00	LUNCH		
	Module 5: Understanding Social Inclusion and the Governance System Related to Springs			
	2:00-3:15	Session 1	75 min	Intersectionalities, social hierarchies and social power dynamics in access to and control over spring water resources
	3:15-3:30	TEA/COFFEE BREAK		
	3:30-4:30	Session 2	60 min	GESI, water resources management and good governance

Day	Time	Session	Duration	Module/ Topic
Day 3	9:30-10:00		15 min	Recap of 2nd Day’s proceedings
	10:00-10:30	Session 3	75 min	GESI-responsive water policies
	10:30-10:45	TEA/COFFEE BREAK		
	10:45-11:30	Session 3 continued.		
	11:30-12:15	Session 4	45 min	Understanding and setting up a GESI monitoring system
	12:15-1:00			
	1:00-2:00	LUNCH		
	Module 6: GESI consideration in hydrogeological Mapping, Development of Conceptual Layout, and Identification of Recharge Areas			
	2:00-2:30	Session 1	30 min	Engaging communities in hydrogeological mapping
	2:30-3:30	Session 2	60 min	GESI and hydrogeological challenges in spring revival and springshed management
	3:15-3:30	TEA/COFFEE BREAK		
	Module 7: Field Visit			
3:45-4:15	Session 1	30 min	Preparation for field visit	
Day 4	9:00-5:00	Session 2	8 hrs	Field visit
Day 5	9:15-10:30	Session 3	120 min	Field visit report preparation and presentation
	10:30-10:45	TEA/COFFEE BREAK		
	10:45-11:00	Session 3 continued.		
	Module 8: GESI considerations in developing springshed management and governance protocols			
	11:00-12:00	Session 1	60 min	GESI considerations in developing springshed management and governance protocols
	Module 9: Measuring the GESI Impact of spring revival activities			
	12:00-1:00	Session 1	60 min	GESI impact evaluation for spring revival activities
	1:00-2:00	LUNCH		
	Module 10: Action Plan for GESI integration in spring revival interventions			
	2:00-3:15	Session 1	90 min	Develop action plan for integrating GESI in spring revival interventions
	3:15-3:30	TEA/COFFEE BREAK		
	3:30-3:45	Session 1 continued.		
	3:45-4:30	Closing session	45 min	Post Test Assessment
				Evaluation of the workshop
				Observations and feedback by participants
Certificate distribution				
Closing remarks and vote of thanks				

Annexe II: Pre- and post-training assessment forms

	Type of assessment
Sex: Male ☐ Female ☐ Others ☐	Pre Post

Serial number:

Mark true or false at the end of each statement.

1. Gender is solely determined by biological factors. ☐ True ☐ False
2. Gender roles are universal and consistent across all cultures. ☐ True ☐ False
3. Gender equality means that men and women should be the same in all situations. ☐ True ☐ False
4. Women are disproportionately affected by water scarcity and lack of access to clean water in many parts of the world. ☐ True ☐ False
5. Gender- responsive water management considers the different water needs and roles of men and women within communities. ☐ True ☐ False
6. Women are often under-represented in water management and decision-making roles at both local and global levels. ☐ True ☐ False
7. Women are primarily responsible for household water management tasks and decision-making in most societies, while men are responsible for provisioning water services. ☐ True ☐ False
8. The primary goal of springshed management is to conserve and sustainably manage the water resources originating from the springs. ☐ True ☐ False
9. Gender-responsive policies and programmes in water management can lead to changes in gender norms and values in communities. ☐ True ☐ False
10. Indigenous Peoples' traditional knowledge is often integrated into effective natural resource management strategies. ☐ True ☐ False
11. Natural resource management focuses primarily on maximising economic benefits without considering GESI and environmental impacts. ☐ True ☐ False
12. Gender blind policies and programmes in natural resource management are equally effective in addressing the needs of both men and women. ☐ True ☐ False
13. GESI integration in natural resource management involves considering the different roles, needs, and interests of men and women. ☐ True ☐ False
14. GESI integration in governance is concerned with recognising the reality of power dynamics among different categories of men and women to ensure fair resource distribution and inclusive decision-making. ☐ True ☐ False
15. Gender equality in natural resource management requires not only addressing women's participation but also challenging underlying power dynamics and social norms. ☐ True ☐ False

About ICIMOD

The Hindu Kush Himalaya (HKH) region stretches 3,500 km across Asia, spanning eight countries – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal, and Pakistan. Encompassing high-altitude mountain ranges, mid-hills, and plains, the zone is vital for the food, water, and energy security of up to two billion people and is a habitat for countless irreplaceable species. It is also acutely fragile and vulnerable to the impacts of the triple planetary crisis of climate change, pollution, and biodiversity loss.

The International Centre for Integrated Mountain Development (ICIMOD), based in Kathmandu, Nepal, is an international knowledge organisation focused on the HKH region, working since 1983 to deliver greener, more inclusive, and climate-resilient development. Our work is guided by our [Strategy 2030, Medium-Term Action Plan V \(2023–2026\)](#) and the associated Results Framework, and our various [policies](#). Learn more on our [website](#).

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International Centre for Integrated Mountain Development
GPO Box 3226, Kathmandu, Nepal
T +977 1 5275222 | **E** info@icimod.org | **www.icimod.org**