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# CONCEPT NOTE

## Transforming Local Water Security: Connecting Research, Action, and Policy

### A SYMPOSIUM

 20th March 2026

 Kathmandu, Nepal

### Introduction

On the occasion of Nepal National Water and Weather Week (NNWWW) 2026, Southasia Institute of Advanced Studies (SIAS), Small Earth Nepal (SEN), Nepal Development Research Institute (NDRI) and Nepal Water Conservation Foundation (NWCF) are co-organizing a symposium in collaboration with Water and Energy Commission Secretariat (WECS) entitled **“Transforming Local Water Security: Connecting Research, Action, and Policy”**. This symposium is organised with financial support from the Australian Centre for International Agricultural Research (ACIAR) and Commonwealth Scientific and Industrial Research Organisation (CSIRO) through the [Muhan](#) project.

## The Thematic Focus

Nepal's waterscape is changing and increasingly fragile. Communities depend on diverse water sources - springs, groundwater, and rivers - for drinking, agriculture, and other livelihoods. Climate change, poorly planned development and unsustainable water use practices have, however, disrupted local hydro-social systems. These interconnected challenges are drying up springwater sources, depleting groundwater, increasing water stress, aggravating water-related disasters, and jeopardizing life and livelihoods. While water is a key area of research across multiple disciplines, studies often remain fragmented, which has limited research influence on decision-making processes. Similarly, initiatives aimed at addressing the water crisis are often driven by political motives and disconnected from rich traditional knowledge about water management, as well as from evidence-based research insights. The lack of a holistic, multi-level, and interdisciplinary approach has led to short-term fixes rather than long-term sustainable solutions. Consequently, local water management has become precarious, exacerbating water insecurities and intensifying conflicts over access to and control over water resources.

Water insecurity is not only a technical challenge, but rather a complex governance issue rendering exclusionary impacts, especially for women and other socio-culturally marginalised groups. A holistic understanding of the complex hydro-social dynamics is the cornerstone to addressing water insecurities and exploring context-suited, inclusive, equitable, climate-adaptive, sustainable water management strategies. Hence, there is an urgent need to foster critical dialogue among interdisciplinary scholars and practitioners. Such a collaborative platform can be instrumental in bridging the gap between research, action, and policy, inspiring interdisciplinary and intergenerational knowledge exchange, and facilitating evidence-informed, inclusive, and sustainable local water governance in the context of accelerating climate change impacts and increasing water insecurities.

The **key thematic areas** that the symposium will focus on are:

**Theme 1. Understanding local hydro-sociology and restoring local water**

**sources:** *How have climate change and changing land and water uses impacted local water security and livelihoods? How can such impacts be mitigated?*

- Climate-water- infrastructure nexus
- Hydro-climatic variability, extreme events, monsoon shifts, disasters and impacts on local water availability
- Reviving hydrological systems and restoring local springs for sustainable livelihoods
- Water-Food- Ecosystem nexus and nature-based solutions for resilient water management

**Theme 2. Inclusive local water governance and equitable water access:** *What are the challenges and opportunities to effectively manage water insecurities and related conflicts amid compounded impacts of climate change and urbanization?*

- Policies and practices for equitable water access, water rights, and gender inclusive decision processes
- Commodification of water, exclusionary impacts, and context-suited innovations
- Water-related conflicts, their management and fostering collective actions
- Inter-governmental coordination, institutional realignment and capacity constraints in local water governance

**Theme 3. Analytical tools, frameworks and approaches for water**

**governance:** *What analytical tools, frameworks, and approaches can help unpack hydro-social dynamics and support evidence-informed, inclusive, and locally led water governance?*

- Integrating traditional/local and modern technology for climate-resilient water management
- Technology, inter-generational knowledge and innovation, including the role of Decision Support System (DSS), Remote Sensing (RS), Artificial Intelligence (AI)/Machine Learning (ML) for climate-resilient water governance
- Improved springshed management as a tradition-based and technology-enabled nature-based solution
- Participatory approaches for inclusive, integrated, and climate-resilient water management