



Government of Nepal

Achieving Water Security in Nepal in a Changing Climate



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Achieving water security in Nepal in a changing climate

Friday, 24 March, 11:00 - 12:15, UN HQ

Organizer: Ministry of Energy, Water Resources and Irrigation, Government of Nepal

Co-organizer: International Water Management Institute (IWMI), Nepal, the World Bank and Alliance for Global Water Adaptation (AGWA)

Background

Side event entitled 'Achieving water security in Nepal in a changing climate' focused on sharing insights, lessons learnt, and challenges faced while achieving water security in the Climate change context. The session drew recommendations from recent work in Nepal, a country with complex socio-economic and institutional settings. Nepal is home to 30 million people, comprising of 126 distinct caste and ethnic groups, who speak 123 languages. Nepal's landscape is equally varied ecologically as the country encompasses all ecological zones from sub-tropical to arctic within a short north-south transit of 200 km. Nepal's water resources are key to socio-economic development. Water serves as a vital link to energy, food, ecosystem systems and plays a crucial role in food production, energy development, tourism, industries, water, sanitation, and hygiene (WASH), and biodiversity conservation. However, climate change impacts, including floods, droughts, extreme events are posing a threat to water resources. Managing water in a changing climate requires transformation in water policies, practices, science, innovation, and institutional capacities.

Key Issues discussed

Nepal and the surrounding regions face growing water insecurity, posing a critical challenge in achieving SDG6 on water management and access. Only one fifth of Nepal's population have access to safe drinking water. Of the 2.2 million hectares of potentially irrigable land, nearly 50% have access to irrigation infrastructure and only one-third has year-round irrigation facilities.

- Climate crisis is a water crisis and it will worsen water availability, affecting sectors like agriculture, hydropower, energy, WASH and the environment, with some places receiving too much or too little.
- Water is not only a resource for productive activities, but an important resource to meet aesthetic and spiritual needs of people, society and environment. Water, energy, food, and ecosystems are highly interconnected, requiring integrated management approaches. However, siloed approach is a challenge to enhance water security.
- There is a gap between policies and practices for gender equality and social inclusion in the water sector. Women and marginalised groups are disproportionately represented in water decision-making. In their primary roles for household water security, women are particularly affected by the impacts of climate change.
- Nepal is well-known to community-based water management and natural resources management, but there are challenges in scaling local solutions to address water insecurity and connecting them to a larger river basin. Nepal has a rich culture of traditional water management. Nepal's water management practices are based on the philosophy of

"harmonious coexistence" with nature. Traditionally, water was managed by the community itself, and water management practices were passed down from one generation to the next.

- International and regional cooperation support in maximizing water-related benefits and reducing disaster risks for everyone involved. Need of holistic approach to river basin management with cooperation of the watershed sharing countries.
- Investment on water infrastructure for climate resilience to meet the growing demand to increase water use and access is challenging. Climate science in socio-ecologically diverse settings and the role of tools like Water Tracker for increased water security and resilience for Nepal.
- The transformative actions are essential to address the urgent need for high ambition water science, knowledge and innovations, as well as water security champions, in developing countries like Nepal.

Key recommendations for action

- Water innovations and investment pathways are critical components not only to achieve SDG6, but all seventeen SDGs. Development cooperation should prioritize new water science and innovation, and participatory knowledge co-creation process and uptake in national policy, development implementation, and capacity building to support water security.
- Multi-stakeholder participation at various levels is necessary to tackle water security challenges with innovative and out-of-the-box solutions. Strengthening the leadership and capacity of women is crucial for their meaningful engagement in water decision-making and development planning.
- Local practices, indigenous and nature-based solutions are key for achieving water security. Many indigenous and diverse culture communities in Nepal have been practicing traditional and sustainable water management practices for centuries. Adopting such practices can be helpful to cope the climate change impact and other challenges so shall be simultaneously preserved. To address the water crisis resulting from climate change, a holistic approach such as water-energy-food-environment (forests and biodiversity) nexus is needed.
- Capacity building across the sectors (human resources and institutions) is a key to achieve water security. Strengthening the technical capacity of farmers and community-based institutions on climate-smart interventions, water quality, efficient water use, integrated management of water, improved water storage and nature-based solutions can build their resilience to climate change and water risks.
- Dedicated efforts and investment are required to implement gender and social inclusive policy frameworks of the Government of Nepal in the water sector. Transformative actions provides a possible way forward to identify critical gaps and opportunities in water research, policy and action required to tackle water insecurity.
- Interventions for water security, like science-based policy and practices, require enabling environments such as legislation, policies, transboundary cooperation, water governance, and digital solutions to address data/information barriers. In addition, sustainable WASH services and making water infrastructure resilient to climate change are also essential. Multi-actor driven water decision-making, enhancing climate information and services, and capacity building are crucial to deliver these interventions.