10th World Water Forum Regional Process

Towards the International Year of Glaciers' Preservation 2025: Cooperation, Governance and Priority-setting for Climate Action and Resilience-building to Glacial Melt in Asia

22 May 2024 (16.40 – 18.10)
Bali, Indonesia

OVERVIEW:

There is a critical need to strengthen cooperation to address the challenges posed by glacial and snow melt and its interactions with other climate-related phenomenon and the demand for water.

The Himalaya, Karakoram and Hindu Kush mountain ranges and the Pamir Mountains, also known as the 'Third Pole', are among the world's highest. This mountainous region encompasses the largest mass of ice and snow outside of the North and South Poles and is home to almost 55,000 glaciers[1]. Referred to as the 'Water Tower of Asia', these ranges are the source of 10 major rivers, namely the Amu Darya, Brahmaputra, Ganges, Indus, Irrawaddy, Mekong, Salween, Tarim, Yangtse and Yellow River[2]. They are crucial to the water security of two billion people[3] in Central, North-East, South and South-West, and South-East Asia who depend on them for freshwater resources for consumption, sanitation, food and energy production as well as inland waterways transport, tourism and ecosystem services.

However, climate change is shifting glacial and snow melt patterns. Glaciers in the Third Pole are melting at a faster rate than the global average ice mass and it has been projected, for instance, that by 2050 the glacier mass in the Everest region will shrink by 39-52 percent[4]. The accelerated rates of melting and retreat of glaciers induced by global warming and altered precipitation regimes – and further reinforced by factors such as black carbon deposition – are driving water-related disasters and impacting multiple sectors, with women, smallholder farmers and indigenous and marginalized communities among those most vulnerable. For example, as reiterated in recent research[5], glacial melt is a contributor to flash floods, landslides and Glacial Lake Outburst Floods. In the agricultural and energy sectors, increased water flows in the short term elevate the risk of downstream flood

[1] The World Bank (2021). Glaciers of the Himalayas. Climate Change, Black Carbon, and Regional Resilience. Available at https://openknowledge.worldbank.org/server/api/core/bitstreams/ff8b1264-d631-5d3d-814f-80f509c82aa9/content (pp. 1).
[2] ICIMOD (2019). Water Security in the Hindu Kush Himalaya. HIMAP Chapter 8 Brief (pp. 2).
[3] UNEP (2022). A Scientific Assessment of the Third Pole Environment. Available at https://wedocs.unep.org/bitstream/handle/20.500.11822/39757/ASATPE.pdf (pp. IV).
[4] The World Bank (2021). Glaciers of the Himalayas. Climate Change, Black Carbon, and Regional Resilience. Available at https://openknowledge.worldbank.org/server/api/core/bitstreams/ff8b1264-d631-5d3d-814f-80f509c82aa9/content (pp. 1).
[5] Ibid (pp. 1-2).

damage to farm production and to dams and hydropower facilities. In the long term, reduced water flows and drought are expected to deepen water scarcity which can jeopardize food security and undermine the operation of the hydropower facilities. The impacts will vary by river basin, depending on the relative contributions of glacial melt, snow melt and precipitation throughout the year, while land use, infrastructure investments and demographic change will also continue to play an important role in shaping the picture at the local level.

Effective management, adaptation and investment strategies will rely on appropriate governance architectures for transboundary collaboration. Better monitoring and understanding of ongoing and projected changes in water demand and supply, impacted communities and sectors and priorities for building resilience will support effective planning and investment in affected areas. Governments in Asia have taken significant steps forward, with approaches shaped by geography, culture and other factors. In Central Asia, the International Fund for the Aral Sea is promoting cooperation for the management of transboundary water resources. In the Mekong River Basin, also highly vulnerable to climate change and impacts of glacial melt, the Mekong River Commission is enabling dialogue and collaborative action on shared water resources management including monitoring, forecasting and basin planning. South and South-West Asia's cooperation is being cemented by high-level political cooperation, among other developments. There are important opportunities for learning from the progress made to date across these and other vulnerable sub-regions.

OBJECTIVES AND EXPECTED OUTCOMES:

The session, which will be co-organized by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), International Water Management Institute (IWMI) and the Asia-Pacific Water Forum (APWF), will take a closer look at ongoing scientific cooperation and key aspects of transboundary cooperation needed to address glacial melt and related impacts. The expected outcomes include:

- Increased awareness of the **key vulnerabilities** to, and **challenges** posed by, glacial melt in Asia.
- Shared assessment of the state of **scientific cooperation** and **critical gaps.**
- Enhanced understanding of progress achieved, and lessons learned in different sub-regions of Asia regarding **key aspects of transboundary cooperation** such as integrated river-basin management and monitoring, science-policy interface, financing and investment, and cross-border institutional coordination.

The United Nations General Assembly adopted a resolution in December 2022 to declare 2025 as the International Year of Glaciers' Preservation (IYGP). In this context, an international conference on glaciers preservation will be held in Tajikistan in 2025. The discussion in the present session will help shape contributions to the international conference.

TENTATIVE PROGRAMME:

Time allocation	Agenda item
16.40 – 16.55 (15 min)	**Opening:** • Opening remarks: Ms. Hitomi Rankine, Chief, Environment and Development Policy Section, Environment and Development Division, ESCAP • Keynote address: Representative of the Government of Tajikistan
16.55 – 17.20 (25 minutes)	**Panel: State of knowledge and scientific cooperation** • What does the science tell us about glacial melt and its implications? • What is the state of scientific cooperation (progress, gaps and opportunities)? Moderator: Dr. Changhua Wu, Chair of the Governing Council, Asia-Pacific Water Forum Panelists: • Dr. Abou Amani, Director, Water Sciences Division and Secretary, Intergovernmental Hydrological Programme, United Nations Educational, Scientific and Cultural Organization • Dr. Mohsin Hafeez, Director, Water, Food and Ecosystems, International Water Management Institute
17.20 – 17.55 (35 minutes)	**Panel: Sub-regional perspectives on transboundary collaboration** • What are the three most important areas of progress on transboundary collaboration on water resources management in different sub-regions? • What are some lessons learned? • What are the top priorities for strengthening transboundary governance and collaboration in Asia? Moderator: Ms. Hitomi Rankine, Chief, Environment and Development Policy Section, Environment and Development Division, ESCAP Panelists: • Central Asia: Mr. Gamzat Khairov, International Fund for Saving the Aral Sea • Hindu-Kush-Himalaya region: Dr. Sangam Shrestha, Professor of Water Engineering and Management and Head of Department of Civil and Infrastructure Engineering, Asian Institute of Technology • South-East Asia: Dr. Truong Hong Tien, Deputy Director General, Viet Nam National Mekong Committee Secretariat
17.55 – 18.10 (15 min)	**Commentary and Discussion** **Closing**