

HIGH-LEVEL INTERNATIONAL CONFERENCE ON GLACIERS' PRESERVATION

29-31 May 2025, Dushanbe, Republic of Tajikistan

CONCEPT NOTE

Pre-final draft

Background

The melting of glaciers is one of the most pressing environmental challenges of our time. Climate change has already destroyed about one-third of mountain ice, and this will continue without serious mitigation consistent with the lower 1.5°C Paris Agreement limit. The *Hindu Kush Himalayan Assessment* predicts that the region could lose up to two-thirds of its glaciers by the end of the century. In Tajikistan, around 30% of glaciers have disappeared over the last century. The Vanj yakh (former Fedchenko) Glacier, the world's largest continental glacier, has retreated by over 1 km in the past 70–80 years and shrunk by 44 km². Brazil's Amazon, fed by Andean glaciers is in severe drought, and extreme events from rapid snowmelt, glacier outburst floods and landslides, have hit countries from Germany to Peru to Nepal.

As glaciers shrink, they disrupt local and seasonal water supplies that billions of people depend on for drinking, irrigation, livelihoods, and energy production. This directly influences agricultural productivity, leading to food insecurity, especially in regions where glacier-fed rivers are vital for irrigation. Additionally, the loss of glaciers has devastating effects on hydropower generation, which many countries rely on. Reduced river water flow diminishes hydropower capacity, affecting energy security and economic development.

Economic inequalities in the face of glacier loss become more pronounced, particularly in developing regions where communities heavily depend on glacier-fed water resources. Vulnerable populations, often in mountainous or rural areas, experience worsened living conditions due to water scarcity, leading to increased poverty and migration. These changes are essentially irreversible for centuries to thousands of years.

The link between glaciers and climate change offers an opportunity to raise mitigation ambition at COP30, the 30th Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC), at which Parties will renew their Nationally Determined Contributions (NDCs) for the next Paris commitment period. In the water context, 2025 marks the seventh year of implementation of the International Decade for Action, "Water for Sustainable Development" 2018-2028, including follow-up on the UN 2023 Water Conference outcomes. Raising awareness and promoting urgent emissions reductions to preserve glaciers is crucial. Even with urgent action, some adaptation will be required to cope with glacier loss. Greater focus should be placed on water adaptation, resilience, and early warning systems with reliable, disaggregated data, especially for developing countries.

The year 2025 also marks the beginning of the Decade of Action for Cryospheric Sciences, 2025–2034¹. Melting of large polar glaciers, as well as ice sheets in the Arctic and Antarctica is also growing. NASA reports that between 1993 and 2019, Greenland lost an average of 279 gigatons of ice annually, while Antarctica lost 148 gigatons. This rapid ice loss is raising global sea levels, with serious consequences for small island developing states and coastal areas, home to hundreds of millions of people. According to the Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC), even in the best-case scenario of limiting warming to 1.5°C, global sea levels will rise by at least 0.3 meters above 2000 levels by 2100. On our current emissions trajectory, levels may approach 2 meters, possibly higher if instabilities in West Antarctica kick into action.

¹ United Nations General Assembly Resolution 78/321, adopted on 14 August 2024

Flooding caused by rising sea levels displaces human communities, destroys ecosystems and farmland, reduces biodiversity, and limits the effectiveness of nature-based solutions. Many residents of small island developing states have already been forced to leave their homes due to flooding.

In December 2022, the United Nations General Assembly declared 2025 as the International Year of Glaciers' Preservation² (IYGP), with the United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Meteorological Organization (WMO) charged with co-facilitating associated activities. The Decade of Action for Cryospheric Sciences, adopted in August 2024 aims to address the challenges of cryosphere (glaciers, ice sheets, snowpack, permafrost, and sea ice) through scientific research and monitoring.³ These initiatives aim to address glacier and cryosphere preservation through enhanced climate ambition, research and monitoring, and mobilizing financial resources while strengthening cooperation and partnerships at all levels.

Recognizing the pressing urgency of these climate issues and their profound socio-economic implications, the High-Level International Conference on Glaciers' Preservation will be convened in Dushanbe, Republic of Tajikistan to highlight the vital role of glaciers in maintaining water resources.

This high-level event will spotlight the crucial connection between glaciers and sustainable socio-economic development, focusing on how glacier preservation is essential to safeguarding livelihoods, improving water availability, minimizing related hazards, recognizing the importance of Indigenous Peoples and knowledge, addressing gender inequalities and achieving long-term development goals for vulnerable regions and populations. Glacier preservation requires urgent climate ambition while increasing climate resilience and sustainability. This event aims to raise awareness and advocate for collective actions.

Objectives

The High-Level International Conference on Glaciers' Preservation aims to anchor the importance of glaciers and the urgency of stopping the accelerated melting, calving and retreating of glaciers on the Global Agenda, and advance global efforts in addressing glacier melt and its wideranging impacts through collaborative action, scientific innovation, and policy alignment. The Conference will support the International Year of Glaciers' Preservation 2025 by mobilizing resources and fostering international cooperation. It seeks to strengthen global partnerships among governments, scientists, civil society, and other stakeholders, with a focus on enhancing transboundary collaboration to preserve glaciers and their socio-economic benefits.

The High-Level International Conference on Glaciers will present a unique opportunity and will capitalize on momentum by contributing to the sequence of multilateral / global events and meetings, such as the 2025 UN Ocean Conference (France, June 2025), 4th International Conference on Financing for Development (Spain, June 2025), High-level Political Forum on Sustainable Development (New York, July 2025), Ramsar Convention on Wetlands COP15 (Zimbabwe, July), UNFCCC COP30 (Brazil, November 2025, a key COP with renewal of Paris Agreement NDCs for the next commitment period) and the preparatory meetings for the 2026 UN Water Conference co-hosted by UAE and Senegal. The *Dushanbe Glaciers High-level Declaration* will inform these forthcoming multilateral events, in particular climate ambition linked to COP30 in Brazil, and link the importance of glaciers writ large to the global sustainable development, environment and climate agendas.

Key additional objectives include advancing scientific research and monitoring to better understand glacier dynamics, addressing the socio-economic consequences of glacier retreat, and promoting integrated adaptation strategies such as early warning systems and disaster risk reduction. By raising the need for glacier preservation, the Conference aims to align glacier preservation efforts with global goals for water, energy, and food security. It will also raise awareness, mobilize resources, and leverage frameworks like The Pact for the Future, adopted at the Summit of the Future on 22 September 2024⁴ and the 2030 Agenda for Sustainable Development⁵ to inspire transformative action, ensuring the resilience and sustainability of glacier-dependent communities and ecosystems.

² United Nations General Assembly Resolution 77/158, adopted on 14 December 2022

³ United Nations adopts resolution to establish the Decade of Action for Cryospheric Sciences, 2025–2034

⁴ United Nations General Assembly Resolution 79/1, adopted on 22 September 2024

⁵ United Nations General Assembly Resolution 70/1, adopted on 25 September 2015

In particular, the Conference will focus on:

- Making Clear the Need for Greater Climate Ambition to Preserve Glaciers. The only real means to preserve global glaciers is for a course-correction at COP30 towards 1.5C pathways. Even at 1.5C, many glaciers will disappear, including in Tajikistan and High Mountain Asia; but current pledges will lead to about 2.5C, devastating glaciers and the communities that depend on glaciers and snowpack for reliable water supplies.
- **Promoting Scientific Research and Monitoring.** To advance glacier, polar ice and high mountain cryosphere science including Indigenous knowledge, technological innovations, and monitoring systems aimed at understanding the dynamics of glacier retreat and its impacts on ecosystems, water resources, and the global climate system.
- Addressing Socio-Economic Impacts of Glacier Melting. To examine the downstream socio-economic consequences of glacier retreat, including its effects on water availability, food security, hydropower, livelihoods, cultural and natural heritage and sea-level rise. The Conference will explore actionable solutions to mitigate these impacts and build resilience in glacier-dependent communities.
- *Enhancing Climate Resilience and Adaptation Strategies*. To promote integrated approaches for adaptation and mitigation, including early warning systems, disaster risk reduction, and infrastructure solutions to manage water resources and prevent glacial hazards. The Conference will prioritize strategies that enhance community resilience, especially in vulnerable regions.
- *Raising Awareness and Mobilizing Resources.* To increase global awareness of the importance of glacier preservation for ecological balance and socio-economic stability. The Conference will seek to mobilize financial and technical resources to support glacier preservation initiatives and ensure the dissemination of best practices and transformative climate solutions.
- Linking Water, Biodiversity, Desertification and Climate Agendas for Sustainable Development. To highlight the interconnection between water and climate agendas and explore opportunities to integrate glacier preservation into broader efforts to address global water, energy, and food security challenges. The Conference will encourage the alignment of glacier preservation initiatives with long-term development goals and to address the triple planetary crisis of climate change, pollution, and biodiversity loss.
- Catalyzing Actions through Key Frameworks and Partnerships. To leverage key global frameworks, such as the 2030 Agenda and Pact for the Future, and strengthen partnerships across stakeholders to promote transformative action to preserve glaciers through urgent climate ambition, as well as create pathways for collective adaptation to effects of glacier melt on local ecosystems and human well-being.

Outcomes

The High-Level International Conference on Glaciers' Preservation will culminate in the following key outcome documents:

<u>The Dushanbe High-level Declaration</u> with a call to actionable commitments, collaborative initiatives, and strategic recommendations to COP30 in Brazil and to implement the UN General Assembly resolution on the "International Year of Glaciers' Preservation 2025." This Declaration will serve as a global call to action to prevent glacier melt and address its wide-ranging impacts. It will also urge greater financing from multilateral development banks, the private sector, bilateral donors, intergovernmental and non-governmental organizations, and other stakeholders to announce pledges in support of glacier-related needs, and by joining Tajikistan's contribution to the IYGP Trust Fund coordinated by the Secretary-General to support glaciers' preservation activities.

<u>The Chair's Summary</u> will consolidate key messages, discussions, insights, and findings from the sessions, forums, providing a roadmap for advancing scientific research, promoting policy measures and sustainable funding, and fostering international cooperation for glacier preservation.

<u>The Dushanbe Appeal</u> will consolidate all inputs from Plenary Statements, Forums and Thematic Sessions in an integrated document available on the Conference web page.

These outcomes will be presented at appropriate venues in the course of 2025, such as the UN High-level Political Forum on Sustainable Development (HLPF), UNGA Climate Week and COP30.

Format and Participation Modalities

The Conference will adopt a multi-stakeholder approach, bringing together high-level officials and other representatives from UN Member States, UN entities, international organizations, financial institutions, the private sector, academia, civil society, local governments, and communities.

Preliminary Programme

The Conference programme includes opening and closing ceremonies, Plenary sessions, Leaders' Round Tables, Pre-Conference Forums, and Thematic Sessions focusing on glaciers in relation to climate change mitigation, adaptation and loss and damage; research and monitoring needs, and solutions for mitigation, resilience and adaptation planning. The Pre-Conference Day (May 29) will include Forums, Side Events, and cultural activities, providing diverse opportunities for dialogue, knowledge exchange, and engagement.

Plenary Sessions

Plenary sessions will provide an opportunity for the Heads of Delegation to make political statements. Guidelines to make statements consistent with the UN General Assembly resolution on the "International Year of Glaciers' Preservation 2025" and as interested, the "Decade of Action for Cryospheric Sciences, 2025–2034" will be provided to Heads of Delegations through diplomatic channels, as appropriate. Time permitting, UN Observer Organizations will also be offered Plenary speaking slots; written statements (even if not delivered) will also be compiled and included in the comprehensive Dushanbe Appeal.

Leaders' Round Tables

Leaders' Round Tables will take place on May 30 in a designated area identified by the Government of Tajikistan with ticketed admission for individual sessions. The Leaders' Round Tables will focus on Ambition Towards COP30 and Adaptation for both Glacier/Mountains and Downstream nations from the impacts of glacier melt, including extreme events such as flooding, drought with glacial loss, and sea-level rise.

Thematic Sessions

The Conference will include Thematic Sessions on the following four thematic areas over the two conference days:

- 1. Socio-economic Impacts of Glacier Melt
- 2. Cross-Cutting Issues: Biodiversity, Cultural and Natural Heritage, Transboundary Cooperation
- 3. Glacier Research and Monitoring
- 4. Solutions: Achieving Resilience through Adaptation and Mitigation

The Thematic Sessions are co-organized by partners including Member States, United Nations funds, agencies and programmes, international and regional organizations, international financial institutions, bilateral development partners, and private sector, as well as academia and non-governmental organizations. The Terms of Reference for the Thematic Sessions will be prepared by the Conference Secretariat. As a general rule, each Session will be co-organized by at least two partners.

The outcomes of the Thematic Sessions will be presented at the Closing Plenary by the rapporteurs of each session. They will also be reflected in the Chair's Summary and the Dushanbe Appeal of the High-Level International Conference on Glaciers' Preservation.

Pre-Conference Forums and Side Events

The Conference will provide opportunities for interested delegations to organize Pre-Conference Forums, as well as Side Events on relevant issues on May 29. These may be wide-ranging but will be subject to approval by the Secretariat based on consistency with the overall goals of the Conference. Participants are free to organize such events at outside venues on their own initiative. The Terms of Reference for the Forums and Side Events will be prepared by the Conference Secretariat and will be available on the website of the Conference.

For example, Forums or Side Events may be structured around the following global agendas:

- Rio-Trio Agenda (Climate, Biodiversity and Desertification) plus Ramsar Convention
- Finance for Development
- UNFCCC COP30
- 2026 UN Water Conference and 2028 UN Water Conference
- Children's Health and Education
- UN Ocean Conference

Organizers

The High-Level International Conference on Glaciers' Preservation is organized in Dushanbe by the Government of the Republic of Tajikistan with the support of the United Nations, in particular UNESCO and WMO, the Asian Development Bank and other partners. The ultimate responsibility for the preparation of the Conference rests with the National Organizing Committee established by the Government of the Republic of Tajikistan under the leadership of the Prime Minister, with a Conference Secretariat reporting to the Committee.

Dates and venue

The Conference will be held from May 29 to 31 May 2025. Pre-Conference events, including Forums and Side Events will take place on May 29. The official Conference programme will take place on May 30 and 31st May in "Kokhi Somon", Dushanbe, Republic of Tajikistan.

International Exhibition

An International Exhibition will be organized at the sidelines of the Conference. Partners interested in organizing their thematic booth shall contact the Secretariat for more information.

Field Trips

Participants will be invited to participate in a tour/field trip on June 1, the day after the Conference to get acquainted with examples of glacier degradation, integrated water resources management and water-related sustainable development in Tajikistan.

Participants who plan to arrive before the Conference or stay longer and wish to visit other parts of Tajikistan are invited to contact the Secretariat for more information.

Languages

The working languages of the Conference are Tajik, English and Russian, with simultaneous translation provided. If Heads of Delegation wish to make a speech or presentation in another language, they are kindly asked to provide their own interpreter.

More information about the Conference is available at www.https://dushanbeicgp2025.com and https://www.un-glaciers.org.

HIGH-LEVEL INTERNATIONAL CONFERENCE ON GLACIERS' PRESERVATION

29-31 May 2025, Dushanbe, Tajikistan

PRELIMINARY PROGRAMME

29 MAY 2025							
	Pre-Conference Forums and Side Events						
09:00 – 12:00	Forum 1 Agriculture in a Time of Glacier Loss: Addressing droughts, flooding with carbon sequestration and resilience in glacier-dependent regions	Forum 2 Children and Youth International Forum on Glacier Preservation and Climate Action	Forum 3 Regional Forum on Glaciers and Cryosphere in Central Asia				
12:30 – 14:00	Lunch Break						
14:00- 17:00	Forum 4 Natural Capital	Forum 5 From IYGP to Decade of Action for Cryospheric Sciences (2025-2034)	Forum 6 Ministerial Dialogue on Climate Resilience, Glacier Preservation, and Water Cooperation				
18:00 – 20:00	Cultural Events						
30 MAY 2025							
09:00 – 10:30	Opening Session						
10:30 - 11:00	Coffee & Networking Break						
11:00 – 12:30	Plenary Session I: Head of Delegation Statements						
12:30 – 14:00	Lunch Break						
14:00– 15:30	Socio-economic Impacts of Glacier Melt						
	TS1: Strategic Actions for Glacial Management to Support Small Island Developing States (SIDS)	TS2: Glaciers and Water Availability in a Changing Climate: From Glaciers to Sea	TS3: Glacial Hazards and Disaster Risk Reduction: "Early Warnings for All"	Leaders' Round Table (by invitation only)			
15:30 – 16:30	Coffee & Networking Break						

	Cross-cutting Issues: Biodiversity, Cultural and Natural Heritage, Transboundary Cooperation			ble			
16:00 – 17:30	TS4: Partnership for Climate Change, Glaciers and Transboundary Cooperation in Central and West Asia Region	TS5: Global Initiatives for Glacier Ecosystem Conservation and Adaptation	TS6: Bridging Indigenous Knowledge, Heritage and Community Action for Glacier Preservation	Leaders' Round Table (by invitation only)			
19:00 – 21:00	Reception hosted by the Government of the Republic of Tajikistan						
31 MAY 2025							
09:00 – 10:30	Plenary Session 2 (Continuation): Head of Delegation Statements						
10:30 - 11:00	Coffee & Networking Break						
11:00 – 12:30	Glacier Science, Research and Monitoring						
	TS7: Glacier Monitoring Needs Worldwide	TS8: Glacier Projections and Emissions: How much can 1.5C Pathways Save?	TS9: Latest Glacier Science: focus on Early Career Researchers				
12:30 - 14:00	Lunch						
14:00 – 15:30	Solutions: Achieving Resilience through Adaptation and Mitigation						
	TS10. Pact for the Future: How the Pact Can Inform Glacier Preservation.	TS11: Climate Finance and Investment for Glacier Preservation and Adaptation.	TS12: Zero-Carbon Deve Path Forward for Glaci				
15:30 – 16:30	Coffee & Networking Break						
16:30 – 17:30	Closing Session						
17:30 – 18:00	Press Conference						
1 JUNE 2025							
09:00 - 18:00	FIELD TRIPS TO GLACIERS / EXCURSIONS						

Note: This is a preliminary programme and is subject to change.