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**FOLLOW UP TO THE WMO CONTRIBUTION TO THE UNITED NATIONS INTERNATIONAL YEAR OF GLACIERS’ PRESERVATION 2025**

### Background

In December 2022, the United Nations General Assembly (UNGA) passed Resolution A/77/443[[1]](#footnote-2), officially designating 2025 as the UN International Year of Glaciers’ Preservation (IYGP25). Additionally, March 21st of each year was declared the World Day for Glaciers, starting in 2025. The United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Meteorological Organization (WMO) were invited to facilitate the implementation of IYGP25 and the observance of the World Day for Glaciers.

The UNGA resolution was acknowledged by [Resolution 6 (Cg-19)](https://library.wmo.int/idviewer/67177/80): Priorities to address global and regional impacts of changes in the cryosphere while defining the priority goals for the next intersessional period.

To advance the objectives of IYGP25, WMO and UNESCO collaborated in July 2023 to host a brainstorming session involving over 100 partners from various international organizations, research centres, UN organizations, NGOs, and several Member States. Based on this a roadmap (Concept note included in this INF; see below) for implementing IYGP25 was formulated and a list of possible activities to be undertaken in support of the initiative was compiled.

Furthermore, Task Forces responsible for leading specific topics related to IYGP25, as well as for an Advisory Board for overlooking the implementation have been established. The Advisory Board, co-led by WMO and UNESCO, comprises leaders from the task teams and other partner organizations. Its role is to oversee the implementation of IYGP25 and the World Day for Glaciers 2025.

CONCEPT NOTE FOR THE IMPLEMENTATION OF THE IYGP 2025

## Introduction

In December 2022, the UN General assembly adopted the resolution[[2]](#footnote-3) to declare 2025 as the International Year of Glaciers' Preservation, accompanied by the proclamation of the 21st of March of each year as the World Day for Glaciers starting in 2025. The International Year and World Day for Glaciers aim to raise global awareness about the critical role of glaciers, snow and ice in the climate system and the hydrological cycle, and the economic, social and environmental impacts of the impending changes in the Earth’s cryosphere. In this regard and in addressing the issues related to accelerated melting of glaciers and its consequences, the International Year and World Day for Glaciers also aim at encouraging the exchange of knowledge and best practices regarding glacier preservation and adaptation strategies.

The melting of glaciers affects everyone: people living in coastal areas affected by sea level rise, people living in high mountain areas more prone to the risks of flooding, landslides and avalanches, and people living in downstream areas that are dependent on water supply from glaciers. Melting glaciers and ice sheets were identified as one of the largest contributors of sea level rise in the past decades according to IPCC 2022[[3]](#footnote-4). Glaciers in UNESCO World Heritage sites are melting at an alarming rate, with a third of the sites set to disappear by 2050[[4]](#footnote-5). In the same time frame, most remaining tropical glaciers in South America, Africa and Asia will vanish. Glacier loss is also accompanied by the loss of biodiversity, especially of endemic species, as well as the loss of cultural values and traditional ways of life.

Glacier retreat clearly presents a serious threat to natural and human water supplies in many parts of the world. The International Year and World Day for Glaciers therefore focus on providing concrete recommendations to address climate change impacts on the cryosphere which result in increasingly irreversible losses, on advocating for more ambitious mitigation, on convening countries and communities affected by glacier loss for sharing knowledge and best practices for preservation and adaptation, and on raising international funding for adaptation action in affected areas.

The International Year and World Day complement the Five Years of Action for the Development of Mountain Regions 2023–2027 adopted by the UN General Assembly in December 2022[[5]](#footnote-6). The Five Years of Action present the main outcome of the International Year of Sustainable Development 2022 which was adopted by the UN General Assembly in December 2021[[6]](#footnote-7).

The importance of initiatives related to the Earths’ cryosphere for the achievement of the Sustainable Development Goals are recognized by the adoption of the International Year and World Day. The activities are further linked to the implementation of the International Decade for Action “Water for Sustainable Development” 2021–2028, the UN Decade on Ecosystem Restoration 2021–2030 and the Global Biodiversity Framework.

This concept note outlines the objectives, possible activities, and expected outcomes of the International Year, encouraging stakeholders to join forces in safeguarding these vital resources, world heritage and ecosystems.

## Key elements of the resolution

(1) Decides to declare 2025 the International Year of Glaciers’ Preservation and to proclaim 21st of March of each year the World Day for Glaciers, to be observed starting in 2025;

(2) Invites all Member States, organizations of the United Nations system, other international and regional organizations and civil society, including non-governmental organizations, individuals and other relevant stakeholders, to observe the International Year and the World Day, as appropriate, at all levels through activities aimed at raising awareness of the importance of glaciers, snow and ice in the climate system and the hydrological cycle, and the economic, social and environmental impacts of the impending changes in the Earth’s cryosphere, and to share best practices and knowledge in this regard;

(3) Invites the United Nations Educational, Scientific and Cultural Organization and WMO, mindful of the provisions of the annex to Economic and Social Council Resolution 1980/67, in cooperation with governments and relevant organizations of the United Nations system, to facilitate implementation of the International Year and observance of the World Day, to take appropriate steps to organize the activities of the Year and the Day and to develop necessary proposals on all activities to support Member States in the implementation of the International Year and observance of the World Day; and

(4) Welcomes the generous offer of the Government of Tajikistan to convene an international conference dedicated to glaciers’ preservation in Tajikistan in 2025 and to assume the costs of the conference.

## Specific objectives of the IYGP25

* Raise Awareness: Increase public and stakeholder awareness at all levels about the importance of glaciers in the climate system, hydrological cycle and global water resources, the differential impacts of glacier changes on downstream communities and ecosystems, and the urgent action needed to develop adaptation strategies.
* Promote Action: Facilitate the implementation of sustainable measures and best practices for the preservation of glaciers, encouraging transboundary cooperation, knowledge-sharing, and innovative approaches.
* Enhance Scientific Understanding: Support scientific research and monitoring initiatives to improve the understanding of glacier changes, the impacts of climate change, possible loss and damages and the implications for communities, ecosystems and water resources.
* Strengthen Policy Frameworks: Advocate for robust policy frameworks at national, regional, and international levels to address the preservation of glaciers, incorporating climate change adaptation, sustainable water management, and disaster risk reduction strategies.
* Strengthen Financial Support: Ensure financial resources are made available to support glacier monitoring and management of the impact of climate change on glacier melt and downstream impacts.

## Proposed key activities

1. **Global Campaign for International Year of Glaciers' Preservation 2025**

* Prepare an outreach and communication strategy for the International Year of Glaciers' Preservation 2025.
* Launch a comprehensive global outreach and awareness campaign supported by relevant messages utilizing various media channels to educate the public and decision makers about the value of glaciers and the consequences of their loss.
* Establish a dedicated website for the International Year of Glaciers' Preservation 2025.
* Develop educational materials, infographics, and documentaries to engage diverse audiences, including schools, universities, and local communities and decision makers.
* Develop policy-science interface communication materials with high-level publications to further engage with a wider range of stakeholders and decision makers.
* Consider the materials to be disseminated in local languages to engage local communities.
* Engage communities through storytelling and local stories related to glaciers.
* Include the UNESCO World Heritage Sites for awareness-raising activities and media coverage.[[7]](#footnote-8)
* Work with goodwill ambassadors and/or youth ambassadors for awareness-raising and greater outreach.
* Invite Member States and scientific institutions for a collective salvage-initiative in collaboration with the Ice Memory Foundation for awareness-raising and media coverage.

1. **International Conference on Glaciers' Preservation**

* International conference convened by Tajikistan in 2025, focusing on knowledge-sharing, best policies and practices, and innovative approaches for preservation of glaciers, adaptation to retreating glaciers and increased climate-resilience, including a call for action.
* International conference on Mountain Hydrology and Cryosphere in Nepal on 9 and 10 November 2023.
* International Water Conference IWC11 by the Global Environment Facility (GEF) in 2025 with a session specifically dedicated to glaciers.
* Facilitate dialogue among policymakers, scientists, civil society, and relevant stakeholders to promote transdisciplinary collaboration and actionable solutions.
* Release of the 2025 edition of the World Water Development Report (WWDR) focusing on the cryosphere-more specifically on melting glaciers-with press coverage and complementary activities organized in collaboration with UNESCO field offices and partners.

1. **Regional Workshops and Capacity-Building**

* Organize regional workshops in collaboration with regional organizations to address specific challenges related to glaciers' preservation, considering regional contexts and needs.
* Provide capacity-building programmes, training workshops, and knowledge-sharing platforms for stakeholders, including policymakers, scientists, and local communities.
* Convene countries and communities affected by glacier loss on the international, national and (inter-)regional level to strengthen advocacy, knowledge-sharing and experience exchange.
* Support outreach, dissemination and communication through the GEF International Waters Learning Exchange and Resource Network (IW:LEARN).

1. **Research and Monitoring Initiatives**

* Support scientific research projects and monitoring initiatives to enhance understanding of glacier dynamics, climate change impacts, and associated risks to ecosystems and water resources.
* Support activities concerning transboundary impacts of glacier changes and transboundary cooperation and communication.
* Foster collaboration among research institutions, universities, and relevant organizations to facilitate data sharing, analysis, and the development of predictive models.
* Establish an Integrated Global Cryosphere Information System as a long-term mechanism to facilitate access to consistent cryosphere data and indicators and to develop standard approaches to monitor the cryosphere changes, integrated with the global water monitoring system in coordination with the World Glacier Monitoring Systems (WGMS).
* Include Local and Indigenous Knowledge Systems (LINKS) for effective management of water availability by mountain communities.
* Establish an Open Science Policy platform to facilitate science-based consensus among countries on major challenges from melting glacier snow and permafrost to consequent water availability in the upstream-downstream hydrological systems in all mountain regions.
* Encourage regional and international cooperative research programmes to further improve our knowledge about melting dynamics and peak water, and potential solutions to mitigate negative impact of glacier melt as well as strategies leading to reduced glacier melting rates.
* Enhance data and information, and science policy linkages on glaciers in UNESCO Biosphere Reserves including local stakeholders in the observation of glaciers and co-creation of knowledge.
* Glacio-hydrological prediction systems and operational outlook mechanisms unite to predict glacier melt and to update future projections of expected meltwater.
* Regular reporting on changes of glaciers and snow, at scales relevant to needs, is formalized and included in local, national, regional and global reporting mechanisms.
* Assessment of short-term, medium-term, and long-term water availability for all mountain basins under current and future deglaciated conditions and climate.
* Strengthen the monitoring, analytical and response capacities of institutions for Disaster Risk Reduction (DRR), through community and gender-sensitive training and awareness campaigns, and through the establishment of Early Warning Systems (EWS) for mountain systems.
* Assessment of societal risks and vulnerabilities associated with Glacier Lake Outburst Floods (GLOFs) and addressing these risks and vulnerabilities to establish a framework for early detection of potential glacier-related hazards and risks.

1. **Policy Advocacy and Partnerships**

* Advocate for the integration of glacier preservation considerations into national and regional climate change strategies, water management policies, and DRR plans.
* Forge partnerships with international organizations, NGOs, private sectors, and academia to leverage expertise, resources, and funding for glacier preservation initiatives.
* Strengthen coordination by linking global data centres including existing international organizations working on cryosphere such as the International Association of Cryospheric Sciences (IACS) as well as existing monitoring systems such as WGMS, Glacier and Permafrost Hazards in Mountains (GAPHAZ), Global Land and Ice Measurements from Space (GLIMS) and Randolph Glacier Inventory (RGI).
* Establish plans for reducing the carbon footprint of the scientific community with the goal of glacier preservation.

1. **Mobilize Funding Support**

* Invite governments, international organizations and private sector entities, philanthropic foundations, and other relevant stakeholders to discuss possible funding and resources mobilization from various sources.
* Secure dedicated funding for glacier monitoring programmes and research projects as well as capacity-building programmes.
* Target climate finance to support adaptation actions aimed at increasing the resilience and adaptive capacity of communities and ecosystems directly affected by glacier retreat and associated risks, as well as downstream regions that depend on glaciers.

## Expected outcomes

* Increased Awareness: Heightened public and stakeholder awareness of the importance of glaciers and the need for their preservation, leading to greater support for sustainable measures.
* Enhanced Collaboration: Strengthened collaboration and knowledge-sharing among stakeholders, including governments, scientists, civil society, and local communities, fostering transboundary and regional cooperation.
* Policy Advances: Improved policy frameworks and integration of glacier preservation into national and international agendas, including climate change adaptation, water management, and DRR strategies.
* Scientific Insights: Expanded scientific understanding of glacier dynamics, climate change impacts, and associated risks, leading to more effective mitigation and adaptation strategies.
* Cryosphere Initiatives: Increased implementation of sustainable measures for cryosphere systems, including community-led, citizen science initiatives, monitoring systems, innovative technologies, and integrated water resource management approaches.
* Increase in funding support: By strengthening financial support, we can ensure the availability of adequate resources to monitor glaciers, understand their changes, and effectively manage the impacts of climate change on water resources. This will contribute to the resilience of communities, ecosystems, and economies that depend on glaciers for water supply and other critical services.

## Coordination mechanism

A dedicated coordination mechanism will be set up to handle the preparation and implementation of activities of the International Year of Glaciers' Preservation 2025, involving all key stakeholders, champion countries and advocacy groups. The coordination will be led by an Advisory Board and Task Forces. The Task Forces will develop an implementation plan, with clear outputs and outcomes, a timeline and means for implementation, and track progress on the implementation of the key activities identified in the implementation plan. Each Task Force will appoint a Task Force lead. The Task Force leads together with WMO and UNESCO representatives (co-chairs) and additional partners constitute the Advisory Board.

## Conclusion

The International Year of Glaciers' Preservation 2025 offers a unique opportunity to prioritize the preservation of these vital systems. By engaging stakeholders, raising awareness, promoting action, and strengthening policy frameworks, we can work together to support safeguarding glaciers – as far as possible in a rapidly warming climate – and the invaluable services they provide to humanity and the environment. The International Year of Glaciers' Preservation aims to provide a key steppingstone to ensure a sustainable future for glaciers and the communities that depend on them.

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1. <https://www.undocs.org/Home/Mobile?FinalSymbol=A%2F77%2F443&Language=E&DeviceType=Desktop&LangRequested=False> [↑](#footnote-ref-2)
2. Resolution A/RES/77/158 adopted by the United Nations General Assembly in December 2022 [↑](#footnote-ref-3)
3. <https://www.ipcc.ch/assessment-report/ar6/> [↑](#footnote-ref-4)
4. UNESCO, IUCN, 2022: World Heritage Glaciers: Sentinels of climate change, Paris, UNESCO; Gland, IUCN [↑](#footnote-ref-5)
5. Resolution A/RES/77/172 adopted by the United Nations General Assembly in December 2022 [↑](#footnote-ref-6)
6. Resolution A/76/L.28 adopted by the United Nations General Assembly in December 2021 [↑](#footnote-ref-7)
7. 50 UNESCO World Heritage Sites are home to glaciers: a total of 18600 glaciers in 50 sites, covering around 66000 km² and representing almost 10% of the Earth’s total glacier area [↑](#footnote-ref-8)