Intergovernmental Hydrological Programme
of the United Nations Educational Scientific and Cultural Organization

The Intergovernmental Hydrological Programme's input

to the

High-level Political Forum on Sustainable Development in July 2025

SC-2025/HYD/DO/2

Intergovernmental Hydrological Programme (IHP) input

High-level Political Forum on Sustainable Development (HLPF)

in July 2025

a) Impacts of multiple crises on the implementation of SDGs 3, 5, 8, 14 and 17 from the vantage point of your intergovernmental body.

As multiple crises threaten the implementation of SDGs, there is need for more science; more scientific knowledge, methodologies and tools, innovations and new technologies if any meaningful global progress is to be realized. The accelerated impacts of multiple crises have slowed down the implementation of SDGS, considering the limited coordinated partnerships, investments and resources, and the threat of climate change, which have reversed the progress so far made. This is the case considering the SDGs inter-linkages and integrated nature and impacts on the three dimensions of sustainable development: the economic, social and environmental. The UNESCO Intergovernmental Hydrological Programme (IHP) facilitates and encourages holistic **hydrological (including river and groundwater systems)** and **cryospheric** scientific research, innovation and knowledge generation, development and deployment of methodologies and tools and assists Member States in dealing with the overarching impacts of multiple crises through science and innovation, research, capacity building and training activities. However, IHP's efforts and that of the broader hydrological and cryospheric science community have been challenged by limited resources amidst multiple crises. This has slowed down investments in science; generation of scientific knowledge, tools and methodologies and the delivery of capacity building initiatives and training that underpins society's ambition to implement the 2030 Development Agenda.

Despite these challenges, currently at its ninth phase (IHP-IX, 2022-2029), IHP puts science to action for a Water Secure World, in a Changing Environment. IHP focus on science action for a water secure world contributes to the implementation of all SDGS. This is the case considering that water is arguably known to be a '**deal maker'** at the epicenter of all SDGS and the "climate connector" that allows for greater collaboration and coordination across the majority of targets for climate change (Paris Agreement), sustainable development (2030 Agenda and its SDGs), and disaster risk reduction (Sendai Framework).

Scientific innovation is indispensable for a sustained, inclusive and sustainable economic growth (SDG 8). The world cannot conserve and sustainably use the oceans, seas and marine resources (SDG 14) and ensure healthy lives (SDG 3), without the underlying science and a thorough understanding of the problem and specifically in relation to water. Mainstreaming of gender equality (SDG 5) in the benefits of research and innovation cannot be realized without, strengthen the means of implementation and revitalizing the Global Partnership for Sustainable Development. Thus (SDG17) calls for partnerships across various actors owing to the interconnectedness nature of the SDGs. Any successful sustainable development programme requires partnerships between governments, the private sector and civil society. Inclusive alliances are built on principles and values, sharing a vision that place people and the planet at the center of decisions reached. UNESCO-IHP, together with its IHP water family, including national committees, scientific networks, centres, chairs and initiatives, strives to deliver Scientific innovation, research and knowledge towards the acceleration of the implementation of SDGs.

b) Three key areas where sustainable, inclusive, science- and evidence-based solutions for achieving the SDGs and leaving no one behind are being effectively delivered, especially related to the cluster of SDGs under review in 2025, also bearing in mind the three dimensions of sustainable development and the interlinkages across the Goals and targets.

UNESCO-IHP been contributing to the implementation of the SDGs 3, 5, 8, 14 and 17 under review in 2025 through the following streams**:**

1. IHP IX (2022-2029) "Science for a Water Secure World in a Changing Environment"

The IHP seeks to enable all stakeholders to participate in the creation of a new, sustainable, science for water culture. The IHP-IX puts science to action for a Water Secure World, in a Changing Environment. The main focus is on five interrelated Priority Areas: Scientific Research and innovation; Water education in the Fourth Industrial Revolution including Sustainability; Bridging the data-knowledge gap; Inclusive water management under conditions of global change; ***Water governance based on science for mitigation, adaptation, and resilience***. The implementation is outlined in the Operational Implementation Plan (OIP) of the IHP IX Strategic Plan. By bringing innovative, interdisciplinary, and environmentally sound methods and tools into play, while fostering and capitalizing on advances in water sciences, IHP acts at the science-policy nexus to help meeting today's global water challenges (***Climate change is primarily known as a water crisis***) which affects the implementation of all the goals under review. IHP calls for "Inclusive Science," advocating for collaborative research and innovation to enhance water resource management and governance.

2. The International Year of Glaciers' Preservation 2025

UNESCO, through its Intergovernmental Hydrological programme (IHP), plays a key role, as a platform for scientific networking and cooperation, to contribute to assessing and monitoring changes in snow, glaciers and water resources and as well to propose options for adaptation. IHP's role is recognized by the adopted resolution by the UN General Assembly that declared the year 2025 as 'the International Year of Glaciers' Preservation in December 2022. The resolution invited UNESCO and WMO to facilitate implementation of the International Year and observance of the World Day for Glaciers, a task that UNESCO and WMO are coordinating. In January 2025, a curtain raiser event was jointly organized in Geneva, at the WMO headquarters to officially launch the year for glaciers preservation 2025, where a '**Joint press release**' was held and an '**Intro for Policymakers policy brief**' launched. UNESCO is supporting the observance of the **first World Day for Glaciers on March 21, 2025**, which is jointly being celebrated with **World Water Day 2025** and the launch of **UN WWDR 2025** edition focusing on Mountain Water Towers and Glaciers both at UNESCO headquarters in Paris and at the UN headquarters in New York. UNESCO will also be participating and contributing to the International **Year of Glaciers' Preservation conference** to be held on **29 May to 1 June 2025** in Dushanbe, Tajikistan. The core objective of the **International Year of Glaciers' Preservation 2025** enhances the objectives of (SDG 17) calling for partnerships across various actors owing to the interconnectedness nature of the SDGs urgent need to mobilize global efforts to prevent further melting of glaciers, preserve their ecosystem functions, and ensure the sustainable use of water resources. This effort underscores the critical importance of collective action in addressing the interlinkages across all the SDGs, as water has cross-sectorial importance.

3. **Upscaling and accelerating action on science: Decade of Action for Cryospheric Sciences (2025-2034)**

UNESCO offers unique contributions through initiatives that leverage the power of science and technology in addition to its commitment to advancing scientific knowledge. As such IHP plays a pivotal role in promoting and disseminating cutting-edge scientific research that informs effective policies and resilient practices. By fostering collaboration (SDG 17) among scientists, policymakers, and communities, UNESCO facilitates the development and implementation of evidence-based solutions. In August 2024 the UN General Assembly, adopted the "**Decade of Action for Cryospheric Sciences 2025-2034**", co-sponsored by 64 countries The resolution decided to proclaim the period from 2025 to 2034 as the Decade of Action for Cryospheric Sciences, within existing structures, available resources and voluntary contributions, to address the challenges associated with melting glaciers and changes to the cryosphere by advancing related scientific research and monitoring, under the overarching goal of advancing global scientific cooperation and sustainable development efforts as articulated in the International Decade of Sciences for Sustainable Development, 2024–2033. ***Article 3*** of the resolution invites UNESCO to lead the implementation of the Decade of Action, in collaboration with other UN organizations and stakeholders, including those involved in the International Year of Glaciers' Preservation, 2025. In response to this role, UNESCO is organizing a brainstorming session on **March 20, 2025,** at the UNESCO headquarters to chart pathways for implementing the UN General Assembly resolution of August 2024 that proclaimed the Decade of Action for Cryospheric Sciences (2025-2034). The decade of action for cryospheric science contributes to a sustained, inclusive and sustainable economic growth (SDG 8), The decade also provides a scientific basis to address sea level rise arising from melting cryosphere, and to conserve and sustainably use the oceans, seas and marine resources (SDG 14) and as a result ensure healthy lives (SDG 3).

c) Three examples of measures to accelerate progress towards SDGs through well-coordinated actions in key transitions to bring progress to scale (food security, energy access and affordability, digital connectivity, education, jobs and social protection, climate change, biodiversity loss and pollution), building on interlinkages between SDGs to ensure cohesive progress.

1. **Scientific networking and cooperation**
    - UNESCO-IHP has been mobilizing its water family that comprises 172 IHP National Committees, 84 water-related UNESCO Chairs and 30 water-specialized centers located across the globe to address water challenges such as floods, droughts etc through science.
    - UNESCO-IHP is following up the Science Based Global Water Assessment idea presented during the HLPF 2023, and is currently conducting a pre-feasibility study, as decided by the 26th session of its council held in June 2024, to explore the potential for a **'UNESCO Water Sciences Report'**
    - UNESCO-IHP also plays a key role, as a ***platform for scientific networking and cooperation***, to contribute to assessing and monitoring changes in snow, glaciers and

water resources and as well to propose options for adaptation. UNESCO is currently implementing two 2 projects on glaciers in central Asia.

- In December 2022, UN GA adopted the resolution to declare 2025 as the **International Year of Glaciers' Preservation, and 21 March of each year** as the World Day for Glaciers starting in 2025. The resolution invites UNESCO and WMO to facilitate implementation of the International Year and observance of the World Day starting from **21 March 2025**, and thereafter on every 21 March.
- In August 2024 the UN General Assembly again, adopted the "**Decade of Action for Cryospheric Sciences 2025-2034**". The resolution decided to proclaim the period from 2025 to 2034 as the Decade of Action for Cryospheric Sciences. UNESCO is leading the implementation of the Decade of Action, in collaboration with other UN organizations and stakeholders, including those involved in the International Year of Glaciers' Preservation, 2025

d) Follow-up actions and measures being undertaken by your intergovernmental body or forum to support implementation of the 2023 SDG Summit Political Declaration and the outcomes of the 2024 Summit of the Future, to advance the implementation of the 2030 Agenda for Sustainable Development

- UNESCO-IHP has stepped up its efforts to raise the profile of science in aiding the implementation of the goals under review focusing on water as both a victim and solution under multiple crises, and on the issues of the melting cryosphere under climate change. UNESCO-IHP is already leading the **Decade of Action for Cryospheric Sciences 2025-2034** to this effect, and also as a co-lead together with WMO of the **international year of Glaciers preservation 2025**. In the framework of the 2024 Summit of the Future, UNESCO-IHP is contributing to its objectives with its IHP-IX strategic plan that focuses on '**Science for a Water Secure World in a Changing Environment'** which contributes to the Pact for the Future' call for **scientific and Data-Driven Decision Making in Water Management.** Furthermore, UNESCO is exploring the potential for a **'UNESCO Water Sciences Report'**

- The '**Pact for the Future'** highlights the need for increasing capacities to respond to droughts, floods, and contamination. A multistakeholder approach is needed to increase investments in enhancing early warning, developing resilient infrastructure, and leveraging technologies. UNESCO-IHP is implementing various activities and initiatives related to early warning systems, and climate resilience water management tools such as CRIDA which is a step-by-step framework for developing adaptation pathways for climate change, developed to help water resources managers and planners to develop resilient systems from the bottom-up to meet both climate adaptation and development. UNESCO has also developed and operationalized ***flood and drought monitoring and early warning systems in Africa*** leveraging on science and emerging technologies to help Member States mitigate and adapt to climate change. For instance, within the framework of its 9th strategic plan of Intergovernmental Hydrological programme (UNESCO-IHP-IX), UNESCO supports the development and sharing of new technologies using, earth observation, Artificial Intelligence and Internet of Things by the scientific community and service

providers. Furthermore, UNESCO-IHP seeks to ensure that these technologies are communicated to and/or used for strengthening capacity of water stakeholders to increase their use in hydrological planning and assessment as well as monitoring and distribution networks for resilience.

e) **Recommendations and key messages to be considered for inclusion in the Ministerial Declaration of the 2025 HLP**

1. Promote and raise the profile of science by supporting the development and dissemination of science-based knowledge, innovations, tools, and methodologies, and training materials on best practices to promote science for SDGs under review.
2. Support the upscaling and accelerating of action on cryospheric science and raising awareness and the need for collective action to address the state of the cryosphere under climate change.
3. Promote partnerships, scientific networking and cooperation, and inclusivity to accelerate implementation of goal 17, to create an enabling environment to implement goals **3, 5, 8, and 14**. UNESCO-IHP plays a key role, as a platform for enhancing cooperation and building partnerships.