

THEMATIC CONCEPT PAPERS

DRAFT

UNESCO contribution to: Water Action Decade: Accelerating the implementation of the objectives of the Decade, including through the UN Secretary-General's Action Plan.

(Template)

I. Introduction

This section will introduce the thematic topic in the context of the UN 2023 Water Conference and set the scene for the concept paper.

As part of the organizational arrangements mandated in A/RES/75/212, paragraph 9 (d), the Secretary-General of the UN 2023 Water Conference will prepare concept papers on the themes of the interactive dialogues, finalized during the one-day preparatory meeting for the Conference convened by the President of the United Nations General Assembly on 25 October 2022. This concept paper is on the theme: Interactive Dialogue 5: Water Action Decade

The world is not on track to achieve SDG 6 and related goals and targets by 2030. The COVID-19 pandemic has further increased the challenge, and the world must quadruple the rate of progress to ensure water and sanitation for all by 2030. Water is inextricably linked to the three pillars of sustainable development, and it integrates social, cultural, economic and political values. It is cross-cutting and underpins the achievement of many SDGs through close linkages with climate, energy, cities, the environment, food security, poverty, gender equality, and health, amongst others. With climate change profoundly affecting our economies, societies and environment, water is indeed the biggest deal breaker to achieve the internationally agreed water-related goals and targets, including those contained in the 2030 Agenda for Sustainable Development.

II. Overview of the challenge, current status and interlinkages

This section will highlight the current status, trends and the need for progress on the theme. In doing so, it will also highlight interlinkages across the theme, in particular the relationships inherent between the theme and the most relevant SDGs, with emphasis on the most relevant targets.

Water is a core element to achieving sustainable development, yet humankind modifies – often irreversibly and unwittingly the pathways and processes through which the global water

cycle operates. The challenges we are currently facing are interconnected and cannot be met if we continue a business as usual, sectoral-silo approach. The accelerating pace of changes in water systems and how they interact with other sectors are creating new and ever-increasing risks to society. That is why optimizing the use of water through interdisciplinary towards transdisciplinary scientific research, together with education and training for its sustainable management, constitute necessary keystones for sustainable institutional development and water governance for global change and water security.

III. Overview of opportunities for progress and transformative solutions

The existing and future water-related challenges we face require the rapid development and deployment of innovative and transformative solutions that go beyond business-as-usual. The international community must strive for concrete recommendations that can foster progress and transformative solutions. The SDG 6 Global Acceleration Framework aims to deliver fast results at an increased scale. The themes of the interactive dialogues will be addressed through the lens of five cross-cutting and interdependent accelerators namely: Financing, Data and information, Capacity development, Innovation, and Governance.

An appropriate scientific mechanism to undertake a solution-oriented water assessment based on scientific evidence is more than ever needed to address in a comprehensive way the complex and interrelated 21st-century water challenges. It must be a transformational approach to articulate a global strategy for sustainable water management that balances human water security and the protection of environmental systems and biodiversity. Such assessment will help to provide a comprehensive diagnosis of water related issues behind the slow progress in the implementation of SDGs. It will offer Member States different valued alternatives to choose accelerated pathways for sound water management.

1. Financing

This section will examine how to improve targeting, better utilization of existing resources and mobilization of additional domestic and international funding for delivery and implementation of all SDG 6 targets, bearing in mind the interlinkages with other goals. It may also explore the barriers that preclude finance mobilisation to date and offer action-oriented solutions.

A funding mechanism is needed for capacity development to ensure sustainability and to reach out to all (leaving no one behind), and to build on the demand driven UN-Water Capacity Development Initiative for coherent support at country level.

2. Data and information

This section will discuss how data generation, validation, standardization and information exchange can build trust and support leaders in making informed decisions and increase accountability. It will discuss how to ensure that high-quality information on SDG 6 indicators is shared and can be easily accessible by any decision maker.

- A science-based mechanism, proposed during the stakeholder consultation meeting of October 24th, is crucial to assess the status of water resources and the projected impacts of climate change in their availability, considering both water quantity and quality. To conduct new, innovative research on water based on state-of-the-art technologies and tools (including citizen science and bottom-up approaches) should aim to fill in the data gaps that affect developing nations, to help design effective climate-proof policies and build locally-led resilience.
- Water issues hit the world's regions differently, and the uncertainty associated with climate projections and the obstacles in downscaling them, hinder the development of local adaptation policies. In this context, collaborative, bottom-up tools support water security policies in a data-scarce environment which are tailored to each community's specific needs and available resources. In 2018, UNESCO launched the Climate Risk Informed Decision Analysis (CRIDA), a bottom-up tool designed to support decision-makers and water managers identify effective adaptation pathways and leveraging sustainable water management. Initially launched in English, CRIDA manual and online course are now available in Spanish, French and Arabic. The tool has been successfully implemented in several case studies worldwide, and efforts are being made to scale it up.
- UNESCO Intergovernmental Hydrological Programme 9th phase (IHP-IX 2022-2029, "Science for a Water Secure World in a Changing Environment") programmatic content is designed with the objective to maximize the support to Member States in attaining SDG 6 and its related UN SDG 6 Global Accelerator Framework, UN Water Decade for Action (2018-2028) and other water-related goals and targets by strengthening scientific knowledge, data availability and enabling informed decision making.
- Among the several opportunities for expanding and sharing scientific knowledge that will be supported during IHP-IX are those related to citizen science. This emerging field combines the efforts of scientists and the public to better understand the water cycle, including the effects of human behaviour. Similarly, encouraging Open Science and Open Data provides an opportunity for scientific information, data and outputs to be more inclusive, more widely accessible and more reliably harnessed with the active engagement of all the stakeholders (scientists, policy-makers and citizens),

3. Capacity development

This section will explore how inclusive human and institutional capacities at all levels can enable improved service levels, operating and maintenance technology, increased job creation in the water sector and the retaining of a skilled work force.

- New generation of water professionals capable of addressing the complex and interrelated water challenges and a new water culture in better understanding water issues at all level are needed.
- UNESCO is dedicated to Open Education Resources (OER). OER provide a strategic opportunity to improve the quality of learning and knowledge-sharing as well as improve policy dialogue, knowledge-sharing and capacity-building globally.
- A global science-based water assessment in line with open science and citizen science is proposed which will contribute to ensure availability and accessibility of up-to-date knowledge addressing the inter-sectoral, systemic, integrative and transdisciplinary nature of the complex and interconnected water challenges.
- Thematic Dialogues should emphasize Science based education and training, including: knowledge transfer; supporting the translation of science-based solutions to locally defined actions, engaging and training local stakeholders; creating a new way of funding to build capacity, partnership including for the non-formal and citizen training; building the capacity and skills of young water professionals is necessary for building their confidence to pursue water-related careers; and structure education to vulnerable and least developed communities and regions which are not covered by formal education, education at all levels is needed to develop such capacity.
- UNESCO-IHP will also contribute to the UN 2023 Water Conference through its Capacity Development Initiative (CDI) established in March 2021 by UN-Water as a response to the SDG 6 Global Acceleration Framework, launched in 2020 by the UN Secretary-General. The CDI is coordinated by UNESCO and UNDESA in collaboration with 35 initiative members from UN Agencies and UN-Water partners. The Initiative is demand-driven, responds to specific countries' capacity development needs by facilitating support from the UN system and other development partners, and encourages national-level ownership.
- UNESCO launched the Open Learning Platform (<https://openlearning.unesco.org/>) in 2020 to support online learning and capacity building on water resources management and related topics, already reaching 28 000 unique learners in 2022. The platform will be further strengthened in 2022 to support the Intergovernmental Hydrological Programme and the UN Water Capacity Development Initiative.

4. Innovation

This section will discuss how innovative practices and technologies can be leveraged and scaled up to ultimately lead to improved water resources and sanitation development and management at the country level.

- Facilitate, demonstrate and scale-up science-based solutions, technologies and innovations, including open science, citizen science, women and youth-led initiatives, as well as traditional and indigenous knowledge to achieve more effective and climate-resilient water and sanitation management in line with national priorities and circumstances.

- UNESCO-IHP offers a scientific and education platform related to water, enabling other complementary network initiatives that bring together research institutes, museums, industry development facilities, innovation centres, scientists, Member States representatives, policy makers, government officials, youth and others, to share knowledge and integrate different points of view. IHP together with its UNESCO Water Family comprises the 169 IHP National Committees and focal persons, UNESCO’s Division of Water Sciences, including the World Water Assessment Programme, regional hydrologists posted in field offices, its 36 Category 2 Centres, and more than 70 thematically grouped water-related UNESCO Chairs, offers the international community a comprehensive grouping of water scientists, managers and practitioners in the water arena. Through this network, UNESCO has established working relationships with global and regional partners at various levels, including other intergovernmental and international organizations. Additionally, IHP has developed partnerships with the private sector and NGO partners aimed to advance the results of scientific research and innovation into practical uses and to promote knowledge sharing at all levels.
- IHP-IX Priority Area nr 1 “Scientific Research and Innovation” aim is to “by 2029, the Member States have the knowledge, sound scientific and research capacity, new and improved technologies, and the management skills that allow them to secure water resources for human development and healthy of ecosystems within a sustainable development context.”

5. Governance

This section will focus on the need for cross-sector and transboundary collaboration, clear roles, stakeholder involvement and effective and inclusive institutions to make SDG 6 everyone’s business.

- Promote shared knowledge on transboundary basins and water resources, by bringing together the scientific community (hydrology, agriculture, and other relevant disciplines) and relevant decision-makers, with the aim of bridging the gap between science and policy.
- UNESCO will be a member of the Transboundary Water Cooperation Coalition (TWCC) that will be launched at the UN-Water Groundwater Summit. The Coalition is a multistakeholder partnership of governments, intergovernmental organizations, regional integration organizations, international financial institutions, academic institutions and civil society organizations. It will encourage concrete commitments to support the advancement of transboundary water cooperation by countries and organizations to be submitted as contributions to the Water Action Agenda, the main outcome of the UN 2023 Water Conference.
- WWAP, in collaboration with its multi-stakeholder coalition, will also contribute to the Conference through its Call for Action initiative to raise awareness, dismantle stereotypes, promote women's empowerment and urge government institutions and funding agencies to commit concrete support to advancing gender equality in the water domain.

IV. Recommendations

This section will outline the main recommendations for the theme, including possible voluntary commitments that would be relevant to address the global water challenges, specifically with respect to the theme of this concept paper. Please build as appropriate on and with reference to the three principles of the Conference:

1. **Inclusive (e.g., who are the actors that should work together):** scientific community to be mobilized with national committees to develop an action plan on global science-based assessment in line with open science and citizen science. Actors: UNESCO, WMO, IAHS, ISC, UNECE Water Future FAO, UNEP, IAEA, Centre of Excellences etc, national committees .
2. **Cross sectoral (e.g., what are the sectors that need to be mobilized):** Open Science based validation mechanism for resilience and sustainability in water, interrelated with most of the other sectors defined by SDGs as water is a critical input to meet many of the development and environmental targets, for instance, Zero hunger (SDG 2), Good health and well-being (SDG 3), Ensure access to affordable, reliable, sustainable and modern energy for all (SDG 7) Sustainable Cities and Communities (SDG 11), Responsible consumption and production (SDG 12) Climate Action (SDG 13) and life on land (SDG 15). Furthermore, Science and technology are powerful agents of change, depending on how they are steered. Science and technology are at the heart of the 2030 Agenda, included as one of the means of implementation under Goal 17.
3. **Action oriented (e.g., what needs to be done):** science based assessment mechanism – Action plan to be presented

Due consideration may be given to contributions from other water-related meetings that served to provide input for the preparatory process for the Conference.

- Dushanbe declaration of the “Second high-level international conference on the international decade for action, ‘Water for Sustainable Development’, 2018-2028”, held from 6 to 9 June 2022, in Dushanbe, Tajikistan.
- UNGA Side Event: “The Melting Cryosphere: Threats to groundwater buffering of streamflow and the sustainability of water resources management, 23rd September
- The UN-Water Groundwater Summit will take place from 7-8 December 2022, at UNESCO HQ, with the goal of raising attention to the importance of groundwater resources at the highest level. The Summit is expected to encourage Member States to make commitments to the protection and sustainable development of this crucial resource, which may be included in the Water Action Agenda to be implemented beyond 2023. Key messages from the UN-Water Groundwater Summit will be also conveyed to the UN 2023 Water Conference.

V. Guiding Questions

This section will present the guiding questions that will shape the discussion during the relevant interactive dialogue at the UN 2023 Water Conference.

- How could we develop effective game-changing tools and methods and scientific assessment mechanisms, that could help leapfrog in achieving water-related SDGs, particularly in countries/regions with a high risk of failure?
- How to tailor water solutions that support climate resilience, adequate to the specific needs of each region and engaging local stakeholders?
- How to change the water culture at all levels and not to considered access to water for granted?
- How to fill the gap of capacity development at country level and to make it sustainable?