

SUMMARY

A GAME-CHANGER FOR UN 2023 WATER CONFERENCE

Intergovernmental Science-Policy
Platform for Water Sustainability

SUMMARY

This paper proposes the establishment of an “**Intergovernmental Science-Policy Platform for Water Sustainability (ISPWAS)**” to undertake a science-based global water assessment to forge a new relationship between science and policy-making. Thus it would bring evidenced-based knowledge and rigorous analysis to policy-making sustainably addressing increasingly complex interconnected water challenges across sectors and bridge the growing science-policy gap that exists in many countries. ISPWAS would share world-class, science-based, solution-oriented knowledge to support Member States in their decision and innovative policy-making that underpins and addresses the complexities of sustainably managing water resources. It would help to identify and address the severe deficiencies in human capacity and water governance that hinder effective water management. ISPWAS would undertake the global assessment implemented through national entities with an intergovernmental validation mechanism.

Governments need to base their policy and decision-making on sound scientific evidence. The widening science-policy gap must be closed to ensure that policies and regulations are more relevant and based on state-of-the-art science. ISPWAS would assist Member States in improving their knowledge of available tools and information for tackling water issues and their use in policy-making. It would facilitate coordination and exchanges among water-related efforts within and between countries and aid Member States in monitoring national or global initiatives.

Finally, ISPWAS would help to position water issues at the forefront of global sustainability agendas and processes. In short, it would significantly transform water management and potentially be a major “**game-changer**” for accelerating implementation of Agenda 2030 and beyond.

BACKGROUND

This game-changing idea for an Intergovernmental Science-Policy Platform for Water Sustainability (ISPWAS) was developed and elaborated as a contribution to the UN 2023 Water Conference in March 2023. The idea originated from the 77th session of the UN General Assembly, where a vision for solutions through solidarity, sustainability and science was born.

In October 2022, more than 1,200 scientists, representatives of Member States, the private sector, multilateral agencies, and civil society engaged in a High-Level Stakeholder Dialogue to identify potential game-changing ideas related to water and the 2030 Agenda for Sustainable Development. Turning these ideas into Water Action Agenda plans would support the ongoing discussions of the Water Conference’s five Interactive Dialogues (ID).

The Intergovernmental Science-Policy Platform for Water Sustainability was one of the proposed ideas, which UNESCO’s Intergovernmental Hydrological Programme (UNESCO-IHP) and Future Earth’s Sustainable Water Future Programme (SWFP) developed with other UN agencies and the scientific community. This paper presents the results of this process and offers an action plan for establishing ISPWAS, its features and its products.

1. MAKING THE CASE

Freshwater, in sufficient quantities and quality, is essential for all aspects of life. It is embedded in development, such as food security, health, and poverty reduction, and it sustains economic growth in agriculture, industry, and energy generation. But many countries are already water insecure, and water scarcity is increasing worldwide. Water security is crucial to our collective future. Yet, as we seek to satisfy the increasing demands for more water, we risk damaging the resource on which every aspect of life depends. Global hydrological processes are being irreversibly modified and are impacting the well-being of current and future generations and the biosphere.

Climate change is leading to greater variability in rainfall and unreliable water supplies, while fragmented and ineffective water governance in many countries has heightened the severity and complexity of water-related problems. Too often, in the face of these challenges, neither science nor policy innovations have been effectively harnessed.

Achieving UN Sustainable Development Goal (SDG) 6 is critical to stall or reverse these trends. But progress is slow and unlikely to be met by 2030, given the current rate of progress. Further delays are likely to be costly and undermine many other aspects of human development.

Improving water governance and management will be essential to achieving SDG 6, but equally, it will play a crucial role in most, if not all, other SDGs. Indeed, the essence of the UN 2030 Agenda is integration across all the SDGs to better share and manage limited natural resources. It also highlights that all SDGs must work together for each to succeed.

Given water's role as a connector and cross-sectorial importance, water is a 'deal maker' in achieving sustainable development. However, moving toward a more water-secure world is highly complex. Such is the complexity that many countries have little option but to rely on insufficient knowledge as they lack access to sound science and tools for rigorous analysis when formulating water policy and making significant investment decisions.

Scientific efforts in the past have not always been helpful. They are often siloed and focused on identifying problems rather than developing solutions. Where science-based water-related reports exist, they lack effective water management solutions that incorporate water demands in other sectors such as food, health, environment, and development. Although knowledge, scientific innovation, and associated tools are increasing, the gap is widening between science, policy, and implementation needed to solve the problems created by droughts, floods, groundwater depletion, pollution, and water shortages.

Governments need to improve their policy and decision-making underpinned by sound scientific evidence. The science-policy gap must be closed to ensure that policy and regulations are more relevant and based on state-of-the-art science. This requires building partnerships between policymakers, science and technology communities, and civil societies and sharing knowledge for everyone's benefit in line with open science recommendations. As yet, there is no effective mechanism among Member States to do this. A new approach is needed to help transform

water management and governance and ease the way for science, scientific tools and innovative policy-making to improve water-related decision-making. A global assessment, implemented through national entities and combined with a validation mechanism, would help to bridge the science-policy gap by generating a comprehensive knowledge base and integrating scattered data and information to support policy, regulation and decision-making.

This paper proposes the establishment of an **“Intergovernmental Science-Policy Platform for Water Sustainability (ISPWAS)”** to forge a new relationship between science and policy-making that would bring evidenced-based information and rigorous analysis to policy-making across the water sector and bridge the growing science-policy gap.

ISPWAS would share world-class, science-based, solution-oriented knowledge to support Member States in their decision and innovative policy-making that underpins and addresses the complexities of sustainably managing water resources. A science-based global water assessment would provide practical and actionable solutions and identify capacity development, implementation and infrastructure needs. ISPWAS would be implemented by national entities and validated by an intergovernmental mechanism. In short, IPSWAS can potentially transform water management and be a major “game-changer”.

2. ISPWAS FEATURES AND PRODUCTS

ISPWAS would be implemented by national entities based on Member States’ needs and validated by an appropriate intergovernmental mechanism. A key objective of ISPWAS would be to position water issues at the forefront of global sustainability agendas and processes.

ISPWAS need not be an additional institutional burden for Member States and the UN system. Instead, it would be embedded in and coordinated with existing UN scientific water-related programmes and the scientific community.

ISPWAS would build on experiences and lessons from other science-policy initiatives and ensure effective coordination across water-related knowledge generated by others, such as FAO, IPBES, IPCC, UNEP, UNESCO, WHO, and WMO. This would promote interdisciplinary approaches across natural and social sciences.

The key features and products of ISPWAS would include (Figure 1):

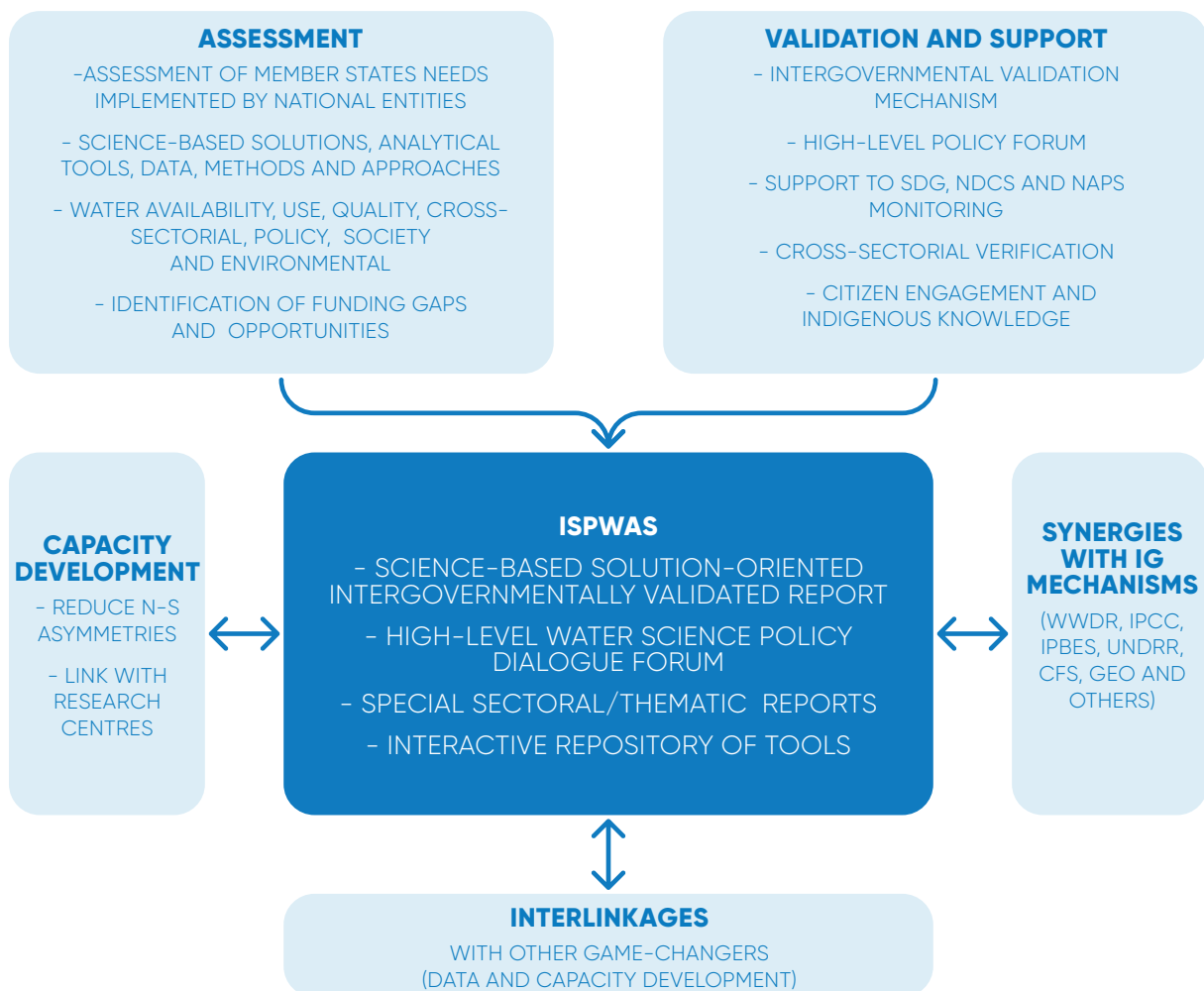
A COMPREHENSIVE GLOBAL WATER ASSESSMENT

A comprehensive global water assessment would be undertaken with data collection at the national level. The assessment would be a global science-based review of analytical tools, data, methods and approaches to provide up-to-date knowledge to address the many water challenges facing Member States and provide policymakers with a comprehensive understanding of their options. It would help Member States to identify investment gaps, opportunities, and priorities to accelerate all water-related SDGs at all levels. The approach would minimize the demand for additional inputs from Member States.

Cutting-edge research would provide the backbone to the assessment facilitated by established global research hubs, specializing in solution-oriented research covering all aspects of the water cycle. It would include water availability, use, quality, and societal and environmental needs and integrate the effects of hydrology, ecology, hydraulics, chemistry, engineering, human health, culture, climatic change and socio-economic behavior to understand the dynamics under varying risk conditions. Digital tools, including earth observation, remote-sensing and artificial intelligence (AI), would help to identify patterns in all water-related processes.

The assessment would be carried out regularly, with continuous updates developed closely with relevant UN agencies and other intergovernmental mechanisms.

FIGURE 1 KEY FEATURES AND PRODUCTS OF THE ISPWAS



CAPACITY DEVELOPMENT

A special feature of ISPWAS would be to address the acute lack of capacity across the water sector in many developing countries to help put policy into practice. Scientists have similar concerns, particularly about the growing importance of interdisciplinary and transdisciplinary research. Experience shows that when technical, natural resources and social scientists work together on development-oriented national priorities, their research is more likely to be put into policy and practice. Developing capacity within research communities would also enable local researchers to engage fully in global assessments and address North-South asymmetries.

VERIFICATION, VALIDATION, AND SUPPORT

A verification and validation process, implemented by an intergovernmental mechanism, would confirm the readiness, reliability, and relevance of the solution-oriented tools, methods, and approaches for policy, regulation, and decision-making. This would be undertaken periodically, at national, regional, and local levels, with continuous updates in close coordination with relevant UN agencies and other science-based intergovernmental entities. It would also offer high legitimacy and authority for ISPWAS' work and products.

INTERLINKAGES AND SYNERGIES

ISPWAS would be interlinked and coordinated with other potential game-changing solutions. These include initiatives in the SDG Global Acceleration Framework in 2022 on data and capacity development and the Round Table on Governance, which proposes a whole-of-society approach to deal with cross-sectorial collaboration and support for water/climate/food policies.

ENVISAGED PRODUCTS

Four key products are envisaged:

- 1. The science-based global assessment** would offer an analytical summary of the best scientific knowledge on critical water-related issues. Published digitally every 5-6 years, it would provide a reference point on the status of global water resources, sectorial water uses, and state-of-the-art management tools.
- 2. A high-Level Water Science-Policy Dialogue Forum** would provide feedback on the assessment outcomes. It would give voice to policy needs and create space for scientists and expert groups to communicate with decision-makers, particularly to address urgent issues. Such a forum would advise on state-of-the-art tools and methodologies and discuss decision alternatives and trade-offs.
- 3. Water policy recommendations and thematic reports**, published every 1 or 2 years, would translate critical scientific findings into policy metrics and recommendations to help policy and decision-makers understand the best course of action based on evidence-based science.
- 4. An interactive web-based repository** of assessment tools, models, data, maps, processes mapping and capacity development tools developed and tested at the national level and validated by national entities. It would include a collection of successful implementations and practical problem solutions in diverse contexts.

3. KEY RECOMMENDATIONS

This paper recommends the following actions:

- **Establish ISPWAS as a global**, science-based, solution-oriented assessment implemented by national entities offering interactive functional tools and methodologies for policy and decision-makers, leveraging ongoing monitoring and solution assessment processes. It would be transformative and game-changing in accelerating and achieving water-related SDGs. ISPWAS would build on, and leverage existing UN scientific intergovernmental water programmes and consider national committees from the Member States and the scientific community to avoid additional institutional burdens and overlaps between the Member States and the UN system.
- **Adopt an intergovernmental validation mechanism** to verify and validate the assessment with the support and participation of Member States and validated by nominated experts.
- **Secure buy-in by Member States and other stakeholders to establish and operationalize ISPWAS:** Adopting ISPWAS would create momentum for several UN agencies and research institutions to develop a collective and solution-oriented mechanism for water resources. Member States' national entities would undertake the water assessment, validated by an intergovernmental mechanism to ensure the solutions and tools meet the specific needs of Member States.
- **Strengthen capacity development, engagement, and communication** through ISPWAS across the water sector, as these are the prerequisites for effective policy implementation. Knowledge gained through the global assessment mechanism can support capacity development.
- **Implement a high-level water science-policy dialogue forum**, enabling world-renowned scientists and expert groups to communicate directly with decision-makers from Member States, particularly where urgent attention is needed to accelerate SDGs.

This summary has been developed with contributions from Robert G. Varady, Annabelle Houdret, Wouter Buytaert, Anil Mishra, Abou Amani, Anik Bhaduri and Olcay Unver, and has been edited by Melvyn Kay.

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Intergovernmental Science-Policy Platform for Water Sustainability (ISPWAS)

UNESCO's Intergovernmental Hydrological Programme (IHP) and Future Earth's Sustainable Water Future Programme (SWFP), in partnership with WMO, UNDP, UNEP, UNCDD, IAEA, IAHS, ISC and other organizations



unesco

Intergovernmental
Hydrological Programme



waterfuture
Sustainable Water Future Programme



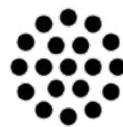
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