**2026 United Nations Water Conference**

**UNDRR inputs to the Concept Paper for Interactive Dialogue 3: Water for planet: climate, biodiversity, desertification, environment, source to sea, resilience and disaster risk reduction**

## Introduction

There is a close interlinkage between water and disaster risk reduction. Water-related disasters, such as floods, droughts and storms, have caused most of the human and economic impact of all disasters combined[1]. Risk-informed decision-making and investment in preventing and reducing water-related risks before they become shocks or disasters is a development priority – whether to public health, food systems, energy systems, transportation or other. With temperatures rising and water-related disasters continuing to affect people across the planet, these linkages must continue to be a priority in the 2026 UN Water Conference and in the context of the implementation of the UN System-Wide Strategy for Water and Sanitation[2].

To address water-related risks, it is essential for all stakeholders to work together with a multi-hazard and multi-sectoral risk governance approach, both at international and national levels.

## Status and trends

Nine out of ten disasters triggered by natural hazards during the last decade were related to water. Water-related disaster deaths have more than doubled in the last 10 years[3]. Water-related disasters also accounted for nearly 95 percent of infrastructure loss and damage[4]. Floods, droughts and storms have therefore caused most of the human and economic impact of all disasters combined. With the growing impact of the climate emergency, water-related disasters are only expected to increase in their frequency and magnitude. According to the 2025 Global Assessment Report on Disaster Risk Reduction, people born

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[1] WMO (2021), Water-related hazards dominate disasters in the past 50 years

[2] The Strategy "[…] *recognizes that a comprehensive whole-of- system response, including greater cooperation, coherence, coordination and complementarity among development, disaster risk reduction, humanitarian*
*action and sustaining peace, is fundamental to most efficiently and effectively addressing needs and attaining the Sustainable Development Goals […]*"

[3] Figure for the reporting period 2010–2019 was taken from the Sendai Monitor database, available at https://sendaimonitor.undrr.org/.

[4] UNDRR (2018) Sendai Framework Monitor

this year have a 36 per cent higher chance of experiencing a 1-in-100-year flood event and a nearly 90 per cent chance of experiencing a 1-in-100-year drought event, compared to those born in 1990[5].

**Challenges and emerging issues**

The water sector frequently involves services delivered through different ministries and agencies, often at the local level, involving a range of experts from different professional backgrounds. Actions to improve water services are also commonly funded by a range of international donors. Assessing and improving the resilience of the water sector is a lengthy and ongoing process due to the complexity of the stakeholder landscape and their various responsibilities, as well as the range of water-sector asset and service types.

Multiple levels of government, and governance, are therefore needed for sustainable water management, which is becoming increasingly complex due to population growth, climate change, uneven distribution of resources, land degradation, and growing demands from industry, agriculture, and urban populations. Climate change is also increasing variability in rainfall, causing more extreme droughts and floods, accelerating glacier melt, and disrupting hydrological cycles - making water supply less predictable.

In terms of water-related disaster data, challenges persist, including on data governance & sustainability, where policies, roles, and processes need to be strengthened and technology options matched to country and institutional situations. Other challenges include applying and advancing standards for assessing damages, disruptions, losses and impacts to ensure comparability and credibility; as well as connecting data and information systems to ensure interoperability.

**Solutions**

Progress has been made across several strands of work since the UN 2023 Water Conference which highlight how these initiatives can resolve some of the challenges mentioned above.

- In relation to data, a next-generation **Disaster and hazardous Events and Losses and damages Tracking & Analysis (DELTA)** system has been established through a partnership between UNDRR, UNDP and WMO, to enable countries to systematically collect, analyze and apply data on hazardous events and losses and damages. Building a consistent evidence base to track progress in preventing and

[5] United Nations Office for Disaster Risk Reduction (2025). Global Assessment Report on Disaster Risk Reduction 2025: Resilience Pays: Financing and Investing for our Future. Geneva.

reducing disaster impacts – including from water–related disasters - and in averting, minimizing and addressing climate-induced loss and damage. This, in turn, supports impact data exchange and sharing, data availability and access to ensure open data for more inclusive and actionable insights, a true public good for a more resilient world.

- Measurable progress has been made on **Multi-Hazard Early Warning System (MHEWS)**, with 119 countries, or 60% of all countries, now reporting the existence of a MHEW, a 113% increase over the past 10 years[6]. However, coverage variations exist between regions, and not all systems are comprehensive. Globally, multi-scalar governance solutions are emerging to better address these challenges. For example, the Water at the Heart of Climate Action[7] initiative brings together diverse partners to improve water governance, while addressing vulnerabilities to water stress among at-risk communities.
- The **Principles for Resilient Infrastructure**[8] provide guidelines and criteria to help stakeholders (governments, private sector, regulators, and communities) to better understand what infrastructure resilience entails, and to ensure that resilience is embedded into infrastructure decisions and investments. The principles are now developed into a new international standard (ISO) and have been applied in countries such as Tonga and Bhutan to enhance water infrastructure resilience.

**Nature-based solutions (NbS)**, which connect disaster risk reduction with other approaches such as climate change adaptation, have emerged as a key solution. They have received increased attention due to their cost-effectiveness and their multiple benefits for the environment, biodiversity, societies, livelihoods and economies. Increased and systematic application of NbS, strengthening technical capacity for their implementation, and innovation in terms of financing opportunities will elevate their potential for increasing resilience to water-related disasters[9].

**Recommendations and conclusions**

- Improve tracking of water-related disaster impacts across geographies, sectors, services and communities, not only to improve our collective understanding of the drivers of water-related risks, but to identify opportunities for joint action that

[6] United Nations Office for Disaster Risk Reduction and World Meteorological Organization (2025). Global Status of Multi-Hazard Early Warning Systems. Geneva, Switzerland.
[7] https://sdgs.un.org/partnerships/water-heart-climate-action
[8] https://www.undrr.org/publication/principles-resilient-infrastructure
[9] https://www.undrr.org/words-action-nature-based-solutions-disaster-risk-reduction

can avert, minimize or address loss and damage to productive assets, livelihoods, and critical systems and public services.

- Apply guidance such as the Global Methodology for Infrastructure Resilience Reviews: Guidance for the Water Sector[10] approach in countries to identify gaps and improvements using the Principles for Resilient Infrastructure for enhancing resilience for the water sector.
- Scale up innovative partnerships and approaches, such as those embodied in the Water at the Heart of Climate Action initiative.

**Guiding questions**

- How can available tools and initiatives be leveraged to further accelerate progress, especially in regions where capacities remain lower and increased progress is needed in terms of MHEWS?
- How can financing for local nature-based solutions be increased to elevate their potential for disaster risk reduction, across all hazards and including water-related ones?
- How can we better link global, multilateral processes and progress at the country and local levels?

[10] https://www.undrr.org/publication/global-methodology-infrastructure-resilience-reviews-guidance-water-sector

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**UNDRR inputs to the Concept Paper for Interactive Dialogue 5: Water in multilateral processes: Sustainable Development Goal 6, the 2030 Agenda for Sustainable Development and beyond, and global water initiatives.**

## I. Introduction

- Water is the connecting element in 90% of disasters globally[1], making water-related risk reduction central to achieving SDG 6 and the broader 2030 Agenda.
- Climate change is amplifying water-related hazards[2]—floods, droughts, and storms—creating systemic risks that cascade across sectors and borders.
- Disaster risk reduction is a development accelerator, supporting progress across multiple SDGs, including health, food security, and climate action, as well as other multilateral frameworks.

## II. Status and trends

- Economic losses from disasters now exceed $2.3 trillion annually[3] when indirect and ecosystem impacts are included, with water-related hazards a major driver.
- Between 2000 and 2019, 1.4 billion people were affected by droughts and 1.6 billion by floods[4], highlighting the scale of water-related vulnerability.
- Freshwater biodiversity has declined by 83% since the 1970s[5], increasing ecosystem fragility. Fragile ecosystems, in turn, reduce the capacity of ecosystems to withstand disasters and to protect ecosystems and populations from hazards.
- Progress on SDG 6 is off-track, with water stress and poor governance increasing exposure to disasters and compounding resilience deficits[6].
- Over the last two decades, floods and droughts have affected more than 3 billion people. Disasters related to weather, climate, or water hazards have

[1] https://www.undrr.org/implementing-sendai-framework/sendai-framework-action/water-risks-and-resilience
[2] https://www.undrr.org/gar/gar2025
[3] https://www.undrr.org/gar/gar2025
[4] https://www.undrr.org/gar/gar2025
[5] https://www.undrr.org/implementing-sendai-framework/sendai-framework-action/water-risks-and-resilience
[6] https://www.unwater.org/publications/sdg-6-synthesis-report-2023

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caused average losses of $ 202 million every day for the past 50 years[7], underscoring the need to improve multilateral action to better address water-related disasters.

- Rapid glacial retreat poses multiple hazards such as GLOFs, avalanches, landslides, changes to river and sediment flow, and displacement waves when large sections of ice fall into lakes or oceans[8].
- About 60% of catchments recorded above or below-normal flows, marking the sixth consecutive year of widespread disruption in the global water cycle[9].
- Multi-hazard early warning systems remain essential to reduce the risk of water-related disasters. The total number of countries reporting the existence of multi-hazard early warning systems has increased from 56 in 2015, to 119 in 2024. Close to 40 per cent of countries (76 in total) have not reported having multi-hazard early warning systems[10].

*III.* **Challenges and emerging issues**: *This section will highlight challenges and opportunities relating to the topics addressed in the interactive dialogue, particularly those that have emerged or become more urgent since the 2023 Water Conference. This section will also identify interlinkages and synergies between the relevant SDG 6 targets and other SDGs.*

- Sustainable water management crosses geographic, sectoral and institutional boundaries, with more countries depending on shared rivers, lakes, glaciers and aquifers while climate pressures are increasing.
- Disaster loss and damage from rapid and slow onset water stress, shocks, and disasters continue to exact a heavy toll across all regions, underscoring the need for multilateral action in of support regional- and nationally-led solutions.
- The multilateral architecture needs to remain fit-for-purpose to address the water challenges of today and those of our climate future, and may require: improved expertise-on-demand mechanisms, multisectoral partnerships, common data to guide joint action and scaling up of science-based approaches that reduce water-related disaster risks.

[7] https://wmo.int/media/news/weather-related-disasters-increase-over-past-50-years-causing-more-damage-fewer-deaths
[8] https://www.undrr.org/reports/global-status-mhews-2025
[9] https://wmo.int/files/state-of-climate-update-cop30
[10] https://www.undrr.org/reports/global-status-mhews-2025

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IV. **Solutions**: *This section will offer action-oriented, innovative, and pragmatic solutions to challenges. It will shine a spotlight on impactful initiatives, programs and projects from around the world that can be scaled up and/or transferred to other contexts. Potential partnerships among Member States and with other stakeholders will feature prominently.*

- **Early Warnings for All (EW4All)[11]:** Scale up multi-hazard early warning systems that integrate water-related data and forecasting to enable anticipatory action for floods, droughts, and other water hazards. EW4All provides a global framework for ensuring that every person is protected by early warning systems by 2027, which is critical for reducing disaster losses and safeguarding water security.
- **Water at the Heart of Climate Action**[12]**:** Multi-scalar governance solutions and partnerships are emerging to better address water-related disaster risk challenges. This initiative brings together diverse stakeholders to strengthen water governance, address vulnerabilities to water stress, and embed risk reduction into climate adaptation strategies.
- **DELTA Resilience**[13]: Risk evidence is essential to prevent risk, reduce losses and strengthen resilience. The Disaster & Hazardous Events, Losses and Damages Tracking & Analysis is a comprehensive system that brings together methodological frameworks, data standards and governance, capacity development and technical assistance, and an open-source software to monitor hazardous events and record losses and damages at national and subnational levels.

V. **Recommendations and conclusions**

- Position water-related DRR as a cross-cutting enabler for SDG acceleration and disaster- and climate resilience.
- Recommend system-wide integration of water risk into multilateral processes, including financing frameworks and global adaptation agendas.
- Call for scaling up investment in resilience, prioritizing vulnerable regions, communities and sectors.

[11] https://earlywarningsforall.org/site/early-warnings-all
[12] https://sdgs.un.org/partnerships/water-heart-climate-action
[13] https://www.undrr.org/building-risk-knowledge/disaster-losses-and-damages-tracking-system-delta-resilience

- Strengthen data ecosystems for water-related risk, ensuring accessibility and interoperability across sectors.
- Promote inclusive governance, engaging local communities and Indigenous Peoples, women, and other vulnerable groups in water risk decision-making.

## VI. Guiding questions

- How can multilateral processes better integrate water-related disaster risk reduction into SDG 6 implementation?
- What multilateral financing and partnership mechanisms can be scaled up to ensure resilient water infrastructure and governance?
- How can global initiatives and multilateral platforms accelerate universal coverage of multi-hazard early warning systems for water-related risks, ensuring interoperability and shared data across countries?
- What role should multilateral science-policy interfaces play in harmonizing data standards and promoting joint research to reduce water-related disaster risks globally?