
Water for Climate, Resilience and Environment: Source to Sea, Biodiversity, Climate, Resilience and DRR

KEY MESSAGES

I. Changing Climate: Water scarcity, droughts and the melting cryosphere

- 1- *Human-induced climate change has a multidimensional negative effect on the human right to water and water-dependent sectors. It negatively affects both water supply, in terms of availability, quantity, and quality, as well as water demand for different uses. Food security, human health, urban and rural settlements, the energy sector, industrial development, economic development, and ecosystems are also increasingly vulnerable to the impacts of climate change.*
- 2- Growing extreme water-related hazards and threats, such as droughts, floods, and the melting cryosphere, have drastic impacts on people, socio-economic development, and ecosystem functions and related ecosystem services.
- 3- A key challenge to build climate-resilient water management is the internal fragmentation and external isolation of the current water management systems. Water systems are fragmented along the hydrological cycle and the geopolitical landscape. In addition, water is an ecoservice managed in isolation from its surrounding and interacting ecosystems.
- 4- COP27 achieved a breakthrough agreement to provide “loss and damage” funding for vulnerable countries hit hard by climate disasters. Creating a specific fund for loss and damage marked an important point of progress. However, the risks of inadequate knowledge, lack of robust and appropriate scientific information, and insufficient needs assessment not only constitute key bottlenecks to climate action and resilience, but also lead to maladaptation. Accurate data and valuation on water-related climate-induced loss and damage, as well as adaptation actions and strategies are critically needed.
- 5- Water-related climate action suffers from a double finance challenge. On the one hand, there are escalating financing needs to build new resilient infrastructure and to maintain and enhance the resilience of existing infrastructure. On the other hand, available financial resources are not always directed to their optimal use as a result of the undervaluation of water-related ecosystems and their related ecoservices. Means of implementation, particularly concessional finance, are key enablers to implement effective water-related climate action.
- 6- Water, food, energy, and ecosystems form a nexus at the heart of sustainable development, and pressure on all four is increasing rapidly. Thus, there is a need to strengthen transnational political systems and logistical support to maximize available resources, including water, in a sustainable way to effectively adapt to climate change. We need to turn the current energy and food crisis into opportunities to transform – nationally and globally – the energy mix, food production, and consumption patterns by addressing water scarcity.

II. Resilience to water disasters: Decreasing risks and conserving biodiversity

- 7- Climate change will adversely affect the risk of water-related disasters. The impact is more severe on vulnerable areas, such as the Least Developed Countries or Small Island Developing States, and on persons most at risk, such as women, children, the elderly, people with disabilities, and indigenous peoples.

- 8- Various frameworks and initiatives for Disaster Risk Reduction (DRR) have been put forward, but lack of reliable data, inadequate risk management, and lack of understanding on the part of decision-makers hinder efforts to strengthen preparedness and build resilience to the water-related disasters.
- 9- Water-related DRR requires close cooperation among multi-stakeholders, including decision-makers and vulnerable people, as well as scientists and engineers. Substantial data and understandable information through technological innovation can connect science and decision-making. It also requires early warning mechanisms, anticipatory action approaches, and resilient infrastructure to enhance preparedness.
- 10- 80% of climate change impact is felt through water. Focus on effective measures that contribute to both mitigation and adaptation of climate change. Water wise green and grey infrastructure, supported by advanced IT on water, can help meet this objective. Embed the concept and system of resilience throughout the whole lives and livelihoods of people and society.
- 11- Invest in water wise green and grey infrastructure that creates a foundation for tomorrow's growth and the well-being of next generations, while at the same time sustaining trust in the future of countries for financial markets. Generate billions in benefit by investing millions through drastically enhancing the capacity of existing infrastructure through digital transformation. Encourage all financial institutions, including International Financial Institutions, to step up their efforts to support green and blue transitions and to align financial flows.

In order to combat climate change, all countries and stakeholders should be united to achieve breakthroughs in urgent water challenges such as the degrading cryosphere, or deteriorating water quality and aquatic ecosystems. Establish symbolic days and years, such as the International Day for Glacier Conservation and World Lake Day, to unite global will and commitments for actions to meet urgent water challenges.

- 12- Water is not only part of the problem; it is also part of the solution. Terrestrial and freshwater ecosystems provide invaluable services for climate action. Water is fundamental to all systems' transition required for climate-resilient development. Transformative water actions can be a catalyst for climate resilience.
- 13- An integrated view of water resources, the biosphere, and environmental flows can help to devise the sustainable water, food, and economic systems needed to develop resilient socio-ecological systems. Decoupling water consumption from economic activity is indispensable and a prerequisite to achieve water sustainability and climate resilience.
- 14- National mechanisms for cross-sectoral coordination and mutually agreed, mutually beneficial, no-harm-based policies for cooperative water-related adaptation can be a solution to building resilience.
- 15- Taking into account the close links between resilience, biodiversity, and the status of water-related ecosystems, holistic conservation approaches are required to implement coherent policies, linking biodiversity conservation and climate-resilient water management.

III. Working for the future: Early warning from source to sea

- 16- Enhance awareness, integrated preparedness, and timely information-sharing by both governments and citizens to detect and prevent future disasters, including pandemics, and all sorts of disturbances. Share lessons and good practices that have been amassed in the last few years as assets for the future we want.

17- In order to build resilience, it is essential to mainstream integrated policy frameworks that combine integrated water resources management (IWRM) with other holistic water-related approaches that link the interconnected ecosystems of the hydrological cycle with the associated socioeconomic processes. Such holistic approaches include source to sea, inclusive transboundary governance, integrated coastal zone management, and disaster-risk management.

18- Water can and should play a critical role to build a post-COVID-19 society that is more resilient and adaptive to both sudden and slow onset disturbances. Decisions by leaders should be both evidence-based and timely. Here, science and technology play a critical role.

Position science and technology as “a game changer” towards a fully resilient post-COVID society through three actions: 1) Promote water cycle consilience by accelerating the Open Science policy, particularly focusing on observation, modelling, and data integration; 2) Foster "facilitators," that is, catalytic individuals who can lead the way toward resolving problems by providing professional advice on-site using a broad range of scientific and indigenous knowledge; and 3) Work together across disciplines and sectors, and among different levels, while taking an end-to-end approach.

19- Water, DRR, and climate change issues should be firmly connected to discussions and actions. Dedicated discussion processes should be established by regularizing the Special Thematic Sessions on Water and Disasters, the 6th session of which took place back-to-back with this Conference. Also, a special discussion to connect water and DRR under the context of climate change should be held during the Mid-term Review of Sendai Framework for Action.

IV. Commitment, Actions, and Coalitions to meet water challenges towards full-achievement of water-related goals and targets

20- Adopting an “Inter-COP” process to connect, integrate, and fully implement water-related decisions made at the global assemblies, conventions, and frameworks dedicated to climate, resilience, and the environment, building on COP27 in particular which brought water discussions to the centre of the climate discourse.

21- Identification, mapping, and alignment of existing water- and climate-related initiatives, such as the UN Secretary-General’s call to action on Early Warning for All by 2027, the “Action on Water Adaptation and Resilience (AWARe)” initiative, the UN action program on water scarcity, (other initiatives can be added here), in order to facilitate finance allocation and cost-effective implementation.

22- A Global Water Information System is a prerequisite for improved water management, climate resilience, early warning, and risk-informed decision-making for climate action and disaster risk reduction, and thus should be among the top priorities of water-related climate action.

23- Without prejudice to vital human needs for water, a Contextualised Environmental Economic Accounting Systems should be considered as a means to reveal the potential of investment directed to water-related climate and environmental resilience-building, and to support countries suffering from water-related climate-induced loss and damage by providing an accurate assessment of them.

24- To secure successful and swift implementation of transformative commitments in the water action agenda, we encourage the office of the PGA to work with Member States to propose a UN Water platform to discuss policy and prepare joint programming to be

discussed in preparation of the SDG Summit.

<Action Workflow> All the contributions referred in the Key Messages can get closer to being truly "action-oriented" if they are implemented through the critical steps, with support from appropriate contributions, starting from challenges to solutions. An Action Workflow was proposed in Interactive Dialogue 3, and the discussion in line with this Action Workflow.