

WMO WATER DECLARATION 2021



WORLD
METEOROLOGICAL
ORGANIZATION

As a specialized agency of the United Nations, the World Meteorological Organization (WMO) is dedicated to international cooperation and coordination of activities related to the state and behavior of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources.

WMO Members work around the clock to monitor the Earth System and provide essential services, information, and scientific knowledge on hydrology for sustainable development, climate change mitigation, as well as resilience, and adaptation to key societal needs sectors.

The Water Declaration is a key milestone in the 70 years history of WMO and raises the organization's ambition in support of achieving internationally agreed sustainable development goals and targets.

We, the delegates of 116 Member States and Territories of the World Meteorological Organization (WMO), meeting from 11 to 22 October 2021 at the Extraordinary Session of the World Meteorological Congress,

Considering:

1. That, by 2030, more than half of the world's population is projected to be living under water-stressed conditions and that expected climate change will further exacerbate these conditions and increase our vulnerability to water-related disasters,
2. The central role of the water cycle in the water-climate-weather continuum,
3. That WMO Members' National Meteorological and Hydrological Services play a key role in providing essential services, information, and scientific knowledge for sustainable development, climate change mitigation, as well as resilience and adaptation to key societal needs-sectors,
4. That essential information includes the hydrosphere and cryosphere as key components of the Earth system,
5. That mountains are a global asset as water towers that store and transport water via glaciers, snowpacks, lakes, and streams, thereby supplying invaluable resources to roughly a quarter of the world's population for drinking, irrigation, and power generation; are a life-saving buffer during droughts; and that climate change already alters the sustainability of these freshwater resources;

We applaud:

1. The hydrological community's effort to lay out a decadal Vision and Strategy for Hydrology as an integral part of the WMO Strategic Plan for an Earth system approach to weather, water, and climate science and services;
2. The development of an Action Plan with eight long-term ambitions to address national, regional, and local water challenges¹;

Declare:

1. That by 2030 early warnings for early action related to floods and droughts will be available for people everywhere on the planet to access;
2. That policies for water and climate action developed within the sustainable development agenda be integrated to yield maximum benefit for our people;
3. That we will pursue these goals through capacity development, knowledge exchange, and information sharing, and by establishing policies, institutional, and legal/regulatory frameworks at all levels that enable enhanced partnerships among all stakeholders from all sectors of society;

¹ [Eight long-term ambitions to address the water challenge](#)

We agree:

1. That the integration of hydrological, cryosphere, meteorological, ocean, climate, and environmental information is a prerequisite to providing solutions that increase resilience and more effectively enable adaptation to climate change;
2. That the unrestricted sharing of Earth system data and information² at the regional, national, and local scales, taking an integrated river basin approach, is vital to create benefits that will allow us to optimize water resources management, national adaptation planning, including the planning of quality infrastructure, as well as effective disaster risk reduction, including early warning systems;
3. That we will work through WMO programmes and initiatives, such as the Water and Climate Coalition (WCC), to promote the sharing and access to integrated hydrological, cryosphere, meteorological, and climate information to plan and operate resilient and sustainable water resources systems at local, national, regional and river basin scales;
4. That we will develop international, mountain-specific monitoring and services to safeguard the amount of water stored in the mountain water towers.

We note:

1. The central role of water, in achieving the United Nations Sustainable Development Goals (SDGs), and of the WCC, as a mechanism for integrating water and climate agendas, as well as the fundamental importance of strengthening operational and scientific-technological capacities at national, regional and global level to address water-related sustainable development and climate change adaptation challenges;
2. The importance of the Sendai Framework for Disaster Risk Reduction 2015-2030 and its guiding principles for disaster risk reduction;
3. The Paris Agreement and the importance of strengthening the global response to the threat of climate change through implementing efficient mitigation measures as well as effective adaptation measures that lead to more resilient societies and sustainable environmental conditions;
4. The coordinating role of UN-Water to align its members' and partners' initiatives, fostering synergies towards the accomplishment of SDG 6 "Ensure availability and sustainable management of water and sanitation for all", and the directing role of the UN's custodian agencies over their corresponding SDG indicators.

We recognize:

1. The need to integrate and strengthen the entire Earth system services value chain — from acquisition and exchange of observations, information, and

² As outline in the [WMO Unified Policy for the International Exchange of Earth System Data](#)

scientific knowledge, through data processing and forecasting, to service delivery — to meet growing societal needs;

2. The pressure on public funding which inhibits the ability of some National Meteorological and Hydrological Services (NMHSs) to sustain and improve the required hydrometeorological infrastructure and services;
3. That despite the availability of low-cost technologies and solutions, currently deteriorating local monitoring networks and the lack of capacity of some NMHSs continue to undermine efforts to provide reliable hydrological services;
4. The need to have access to integrated Earth system information and services for designing appropriate solutions, with an ever-increasing scientific base, that will support the growing demand for water in a sustainable way;
5. The need for more effective incentives, guidelines, standards, and decision-support systems to ensure that relevant data and information is easily accessible, interpreted, and effectively used in planning and management processes;
6. The need to promote the emergence of regional hydrometeorological awareness, especially on the scale of shared basins;

We reaffirm:

1. The mission of WMO outlined under [Article 2](#) of the WMO Convention to facilitate worldwide cooperation on monitoring and predicting changes in weather, climate and water through the exchange of information and services, standardization, application, research and training and to explicitly promote activities in operational hydrology and further enable close cooperation between Meteorological and Hydrological Services;
2. The WMO strategic objective to develop services in support of sustainable water resources management and to reduce related risks and subsequent losses through improved access to reliable global, regional, and river basin information on the current status and future conditions of water resources;
3. The vital importance of the mission of the NMHSs in monitoring, understanding and predicting weather, climate and water behaviour, and in providing related information, warnings and services that meet river basin, regional, national, and global needs;
4. The responsibility of Members' governments to maintain, sustain, and where possible, expand requisite hydrometeorological infrastructure and the operation of systems and facilities for observations, data exchange and information supply;
5. The importance of NMHSs' cooperation to promote the development of international agencies or commissions for the management of water resources in shared basins;
6. The importance of promoting the creation of additional monitoring and research centers for high mountains and centers for drought monitoring and research to operate in different regions;

We welcome:

1. The contributions of Members, partner organizations, and the WCC members to sustaining and developing the global hydrological information and data infrastructure coordinated by WMO through its programmes;
2. The opportunities that globalization, digitalization, and scientific-technological development bring about for a wider engagement of end-users, stakeholders, partners from the private sector, civil society, and scientific organizations in setting requirements for and supporting decision processes;

We urge Governments:

1. To facilitate and support enhanced cooperation and partnerships at all relevant levels involving National Meteorological, Hydrometeorological and Hydrological Services, and other relevant partners for delivering integrated early warnings and services to society relevant for the water-food-energy nexus, future water availability, clean water and sanitation, and disaster risk reduction;
2. To scale up human and financial investments to ensure the sustainable production, provision and maintenance of hydrological services;
3. To ensure real-time information is available to the extent necessary to save lives and property at all relevant scales, taking an integrated river basin approach;
4. To establish partnerships between National Meteorological Services, National Hydrological Services, and other relevant stakeholders, including community organizations, using an integrated water resources management approach, taking advantage of existing collaborations to actively pursue, plan, and document the integration of their capacities and structures that are needed to deliver services for the benefit of society;

We invite Governments and International Partners to come together in the WCC to define principles for integrating water and climate policy developments and to agree on incentives and guidelines that will help to ensure the financial and institutional sustainability and increased coverage of hydrological observation networks, and that their data is actionable.