

The United Nations World Water Development Report 2020

WATER AND CLIMATE CHANGE



WWDR 2020

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Foreword

by **Audrey Azoulay**, *Director-General of UNESCO*

The climate is changing, and our world is in danger.

Around one million animal and plant species are facing extinction. Freshwater species have suffered the greatest decline, falling by 84% since 1970. Humans are also affected: around four billion people currently experience severe physical water scarcity for at least one month per year, a situation that has been exacerbated by the climate crisis.

As the planet warms, water has become one of the main ways we experience climate change.

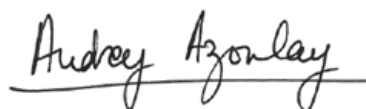
And yet the word “water” rarely appears in international climate agreements, even though it plays a key role in issues such as food security, energy production, economic development and poverty reduction.

This potential of water must be explored, given that our actions to reduce global warming are currently lagging behind our ambitions, despite wide adherence to the Paris Agreement.

That is the goal of the 2020 *World Water Development Report* on water and climate change. The report shows that water does not need to be a problem – it can be part of the solution. Water can support efforts to both mitigate and adapt to climate change. Wetland protection, conservation agriculture and other nature-based solutions can help to sequester carbon in biomass and soils. Improved wastewater treatment can help reduce greenhouse gas emissions and produce biogas as a source of renewable energy.

Coordinated and produced by UNESCO, this report is the result of close and continued collaboration within the UN-Water family. It was made possible thanks to the Government of Italy and the Regione Umbria, which have long supported the World Water Assessment Programme. I wish to thank all those who participated in this common endeavour.

Water is not just about development – it is a basic human right. It is essential to peace and security around the world. Addressing the issue of water is not a task to be taken lightly. We must rise to this challenge if we are to leave behind a world that future generations can live in.



Audrey Azoulay

Foreword

by Gilbert F. Hounbo, *Chair of UN-Water and President of the International Fund for Agricultural Development*

Climate change affects – and is affected by – global water resources. It reduces the predictability of water availability and affects water quality. Climate change also increases the occurrence of extreme weather events, threatening sustainable social-economic development and biodiversity worldwide. This, in turn, has profound implications for water resources. As such, climate change exacerbates the ever-growing challenges associated with the sustainable management of water. Conversely, the way water is managed influences the drivers of climate change.

Water, therefore, is the ultimate connector in the global commitments towards a sustainable future: the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs) are highly dependent on improved water management. Within the Sendai Framework for Disaster Risk Reduction, adopted by UN Member States in March, 2015, water management is essential for reducing the occurrence and impacts of water-related disasters, which have the largest effect on society and people's livelihoods. And the implementation of the Paris Agreement is dependent on improved management of water resources. This is clearly acknowledged in many countries' Nationally Determined Contributions (NDCs) to reduce greenhouse gas emissions and adapt to the impacts of climate change under the UN Framework Convention on Climate Change. Adaptation initiatives related to water, for example, have been included as a first priority in many NDCs.

The 2020 edition of the UN World Water Development Report addresses the critical linkages between water and climate change in the context of sustainable development. It also serves as a guide for concrete actions to address these challenges. It outlines actions, supported by examples from across the world, in three areas: first, enabling people to adapt to the impacts of climate change; second, improving the resilience of livelihoods; and, third, reducing the drivers of climate change. Critically, measures to improve the efficiency of water use in agriculture - while at the same time ensuring water access for vulnerable groups such as smallholder farmers - is inextricably linked to multiple SDGs. These include those related to zero hunger (SDG 2), availability and access to water (SDG 6), climate action (SDG 13), and promoting the sustainable use of ecosystem services (SDG 15).

The Report concludes that reducing both the impacts and drivers of climate change will require substantial changes in the way we use and reuse the Earth's limited water resources. The experience and expertise needed to achieve this goal are brought together in the Report through UN-Water's Members and Partners. I would like to thank them all for the development of this flagship publication. I am grateful to UNESCO and its World Water Assessment Programme for coordinating the production of this report. I am confident that

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