

Round table on “Water Security” 8th November 2022

Water touches every aspect of development and livelihoods and it links with nearly every Sustainable Development Goal (SDG). It drives economic growth, supports healthy ecosystems, and is essential and fundamental for life itself.¹ Water availability is critical to human activities, ecosystems preservation, poverty reduction, peace, and security. However, water security is far from being achieved, and the pressure on water security is likely to increase in the coming decades. The current water security situation is bound to be rapidly and deeply affected by the increasing incidence of water-related disasters induced by climate change, with severe consequences for the 3.6 billion people living in geographical zones highly vulnerable to climate impacts.²

Water and Climate are inextricably linked. According to the IPCC 6th Assessment Report, extreme weather events causing severe floods and droughts have become more frequent and more severe due to human-induced climate change and will accelerate in the near future.³ Indeed, the intensification of the hydrological cycle due to human-induced climate change is affecting physical aspects of water security, thereby exacerbating existing water-related vulnerabilities caused by other socioeconomic factors.⁴ Between 2001 and 2018, UN Water reported that 74% of all natural disasters are water-related (i.e. flood and droughts)⁵. Particularly, droughts contributed to ~650,000 deaths globally over this period (34% of total disaster-related deaths), mostly in Africa. Combined, floods and droughts accounted for 38% of reported economic losses over the period, corresponding to \$1.4tn in total or \$27bn on average per year over the past half century. As water-related risks will keep on increasing with global warming, exposing more vulnerable regions to greater issues, between 3 and 4 billion people are projected to face physical water scarcity under respective scenarios of a 2°C and 4°C global temperature increase.⁶

Consequently, according to the IPCC Report, without effective adaptation measures, water scarcity will generate severe economic consequences, as water-related catastrophes are projected to reduce global GDP by ~0.5% in 2050 with significant regional variations for the Middle East (14%), Sahel (11.7%), Central Asia (10.7%), and East Asia (7%).⁷ Moreover, in the Mediterranean region as one of the main climate change hotspots, already over 180 million people are water poor.⁸ Reports have also shown that climate change is expected to exacerbate water quality degradation as a result of higher water temperatures, reduced dissolved oxygen content causing a reduction in the self-purifying capacity of freshwater bodies.⁹

1 WB: <https://www.worldbank.org/en/topic/water/overview>

2 WMO (2021) - https://library.wmo.int/doc_num.php?explnum_id=10989

3 IPCC WGII Report (2021) - https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Chapter04.pdf

4 WMO, *ibid*

5 UN World Water Development Report (2020) - <https://unesdoc.unesco.org/ark:/48223/pf0000372985.locale=en>

6 IPCC, *ibid*

The African continent will be the most affected region in the world by climate change with increasing temperature, decreasing precipitation and more intense storms. This was also highlighted in the UN Water Report stating that the impacts of climate change on Africa's water resources are already acute.¹⁰ Therefore, adapting to the effects of climate change to reinforce water security is therefore crucial for global socio-economic development as well as healthy ecosystems, and the global community has integrated the importance of this issue. Indeed, in more than 80% of latest available NDCs' adaptation components¹¹, the protection of freshwater resources is considered as a key priority, and 79% of countries have flagged, through the submission of their Technology Needs Assessments (TNAs) between 2009 and 2018¹², the need to reinforce technology within the water sector to adapt to climate change. According to the IFC/GCA, a USD 800 million investment in early warning systems can reduce climate disaster losses by 3-16 billion per year in developing countries.

Global achievements:

Many initiatives are being launched to enhance water security in water-stressed countries, at the local (e.g. the Lusaka Water Security Initiative to preserve water in Zambia) and global (e.g. the Pacific Institute which produces research and informational resources globally about water conservation) levels. Moreover, collective action is also coordinated to preserve water resources, e.g. the Ramsar Convention, launched in 1975, which is helping to protect more than 2,000 wetlands, or the Water Convention, launched in 1992 and currently signed by more than 40 parties, which aims to improve protection and management of transboundary water sources (both surface and groundwater).

Numerous actions are being taken to effectively manage transboundary water sources. Indeed, the monitoring exercise conducted in 2020 jointly by UNECE and UNESCO stated that 129 of the 153 countries sharing transboundary waters submitted operational arrangements for transboundary water cooperation. Among these arrangements can be outlined:

- The Mekong River Commission, which has been launched in 1995 to enhance a sustainable management of the Mekong River among countries it crosses (Cambodia, Laos, Thailand & Vietnam) to ensure a mutual benefit for local populations and industries.
- The Organization for the Development of the Gambia River, which has been created in 2015 to rationalize the management of the common resources of the Gambia river and its confluences among Gambia, Guinea, Guinea-Bissau, and Senegal, with the objective to increase the fair and equitable to hydroelectricity for populations.

⁷ WMO, *ibid*

⁸ UFM, <https://ufmsecretariat.org/water-agenda/>

⁹ UN World Water Development Report, *ibid*

¹⁰ UN World Water Development Report, *ibid*

¹¹ UNFCCC (2021) - https://unfccc.int/sites/default/files/resource/cma2021_08r01_E.pdf

¹² UNFCCC (2022) - <https://unfccc.int/ttclear/tna>

Numerous private companies are also involved in fighting against water scarcity globally, e.g. AB-Inbev is committed to swap barley for water resistant local crops such as cassava.

Goal:

The multi-stakeholder roundtable aims to encourage dialogue between parties and different actors across the water sector. The objective of the session is to provide space for a deep exchange to address a whole range water-related issues, with a focus on harnessing water security action into the global climate agenda. The discussions will build on evidence-based science of the IPCC 6th Assessment Round Reports, as well as relevant UN water-related reports. It will also feature sharing experience from the existing initiatives and global efforts to address the issue.

Guiding Questions:

The main challenge around this session is that water security is a global issue affecting both developing and developed countries. Hence, even though developing countries are hit the hardest by water scarcity, the discussion should not be polarized, and major solutions discussed should be applicable to most of water-stressed countries. During the roundtable, developing as well as developed countries representatives may then try to disclose success stories around water management, while UN organizations and financial institutions representatives will participate to the debate by reflecting on ways to scale these techniques to other water-stressed countries and identify tangible actions to accelerate the implementation of key water security projects worldwide. The guiding questions for the roundtable shall then be:

- Questions for developing and developed countries having to manage water resources efficiently while adapting to climate change:
 1. How to accelerate the implementation of projects aiming at allocating water resources in the most efficient way and ensuring its best socio-economic use among professional sectors & communities globally?
 2. How to replicate globally success stories of effective water management processes (e.g. Egypt's example on water recycling within agricultural irrigation, etc.) and adaptation to water-related climate impacts?

- **Questions for financial institutions:**
 1. What are the key barriers hindering public and private investment into technology reinforcement to improve resilience of water systems and improve water security?
 2. What dedicated vehicles could be set up globally to favor the necessary concentration of funds and therefore solve climate change water-related challenges (i.e.: adaptation to pre-empt water disasters, early-warning systems, etc.)?

- **Questions for IGOs:**
 1. What mechanisms of international cooperation could be implemented to accelerate the implementation of adaptation projects to water-related disasters?

- **Questions for the private sector:**
 1. How to replicate the behavioral targets (i.e. Science Based Targets for freshwater) into corporate water standards globally to preserve water resources and ensure a resilient and sustainable growth?
 2. What mechanisms could encourage positive water resources preservation behaviors & innovation within the private sector & civil society globally