

High-level Political Forum 2023

SDGs in focus: SDG 6 and interlinkages with other SDGs – Clean water and sanitation

Secretariat Background Note

“Water needs to be at the centre of the global political agenda.”

António Guterres, Secretary-General of the United Nations, 24 March 2023¹

Background

For the first time in almost fifty years, the United Nations convened its Member States in March 2023 to discuss water at the global level. The recent UN 2023 Water Conference reminded the world about the importance of water for the successful achievement of the 2030 Agenda. Water plays a critical role in maintaining healthy ecosystems, reducing global disease, empowering women, enhancing the welfare and productivity of populations, adapting to climate change, and fostering peace, acting as a vital connection between the climate system, human society and the environment.

Co-hosted by the Kingdom of the Netherlands and the Republic of Tajikistan, the Conference emphasized the significance of water as a unifying resource that intersects numerous global challenges, including climate change, health, peace, sustainable development, poverty alleviation, job creation, human rights, gender equality and the conservation and sustainable use of biodiversity. The vision and commitment of over 10,000 participants during the Conference strengthened the momentum toward a sustainable, equitable, and inclusive water-secure future.

The outcomes of the Conference further fortified this momentum. To achieve SDG 6, a dramatic accelerating of resources and investment will be required. Reinforcing the recognition of water and sanitation as fundamental human rights is a pivotal step towards a more sustainable future and serves as the foundation for initiatives across the many issues related to water and sanitation. It is important to reduce pressures on our hydrological system through intelligent and synergistic policymaking, which includes developing alternative food systems that minimize unsustainable water use in agriculture, a significant consumer and polluter of water resources. By 2030, a global water information system should be designed to inform and guide effective water management plans and actions. Simultaneously, integrating approaches

¹ United Nations, Secretary-General, 2023. Secretary-General's closing remarks at the United Nations Water Conference. Available from: <https://www.un.org/sg/en/content/sg/speeches/2023-03-24/secretary-generals-closing-remarks-the-united-nations-water-conference>

to water, ecosystems, and climate action can help bolster community resilience. This can help reduce risks to health and ecosystems, and the risk of water-related disasters, including by enhancing infrastructure resilience and early warning systems, and reducing greenhouse gas emissions. Advocacy for climate justice and concerted efforts to halt and reverse biodiversity loss are critical, as is the acceleration of resources and investment into achieving SDG 6. One of the main outcomes that was communicated by the United Nations Secretary-General is the consideration for the appointment of a United Nations Special Envoy on Water.²

The UN 2023 Water Conference culminated in the formulation of the Water Action Agenda, a compilation of all water-related voluntary pledges aimed at speeding up progress toward the achievement of SDG 6 during the latter half of the Water Action Decade (2018-2028) and the second phase of the 2030 Agenda. As of early May 2023, more than 800 commitments were registered as part of the Water Action Agenda.³

Where the world stands with SDG 6

The world will need all the efforts committed and more to achieve the outcomes of the UN 2023 Water Conference. The latest data on SDG 6 demonstrates that the world is alarmingly off-track from achieving its targets, which puts at risk the entire 2030 Agenda and our planet, people and prosperity. As SDG 6 is under review during the High-level Political Forum, HLPF 2023, the below is a snapshot of the current progress on the goal, and reflects how much more work needs to be done with the acknowledgment that there is a still insufficient data to report on all of SDG 6:⁴

- SDG targets 6.1 and 6.2 aim to ensure safe and affordable drinking water, end open defecation, and provide access to sanitation and hygiene to all. Between 2015 and 2022, the percentage of the population using safely managed drinking water services rose by 700 million people yet in 2022, 2.2 billion still lacked drinking water services that are accessible on premises, available when needed, and free from contamination. In the same period, those with access to safely managed sanitation increased by 902 million people and 1.5 billion still lack even basic sanitation services in 2022. In 2022, 75 per cent of the world’s population handwashing facilities with soap and water at home, but 2 billion are still do not have access.
- SDG target 6.3 aims to improve water quality, wastewater treatment, and safe reuse. In 2022, only 58 per cent of household wastewater is not safely treated globally only a rise by two percentages points since 2020, but a lack of data prevents a full picture of the situation. There is also a lack of data on the quality of water for at least 3 billion people. Of 96 countries reporting, 40 per cent of water bodies have less than good ambient water quality.

² Ibid.

³ United Nations, Department of Economic and Social Affairs, 2023a. Water Action Agenda. Available from <https://sdgs.un.org/partnerships/action-networks/water>

⁴ Unless otherwise noted, all data comes from: UN-Water, n.d. UN-Water SDG 6 Data Portal. Available from <https://www.sdg6data.org/en/node/1>

- SDG target 6.4 aims to increase water-use efficiency and ensure freshwater supplies. All economic sectors reported improvements in water-use efficiency from 2015 to 2020: water-use efficiency in agriculture has had the greatest increase (20 per cent) from 2015, compared to the industrial sector (13 per cent) and the service sector (0.3 per cent). However, as of 2019, 2.4 billion people live in water-stressed countries, with 800 million living in high or critically water-stressed nations.
- SDG target 6.5 aims to implement integrated water resources management (IWRM), including through transboundary water cooperation, as appropriate. 107 countries are not on track to implement IWRM by 2030. While 153 countries worldwide share transboundary rivers, lakes and aquifers, only 58 per cent of the world's transboundary water basins were covered by operational arrangements for water cooperation in 2020 and just 32 countries reported high coverage (90 per cent or more). Information and data sharing on groundwater and cooperation on transboundary aquifers is particularly lagging behind.
- SDG target 6.6 aims to protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers, and lakes. Freshwater species and habitats are being lost at a faster rate than any ecosystem type, with 67 per cent of the world's wetlands estimated to have been lost since 1900. Rivers, lakes and aquifers are also rapidly changing, with 20 per cent of the world's river basins experiencing rapid changes in the area covered by surface waters from 2016 to 2021.
- SDG target 6.a aims to expand water and sanitation support to developing countries. While ODA commitments rose from 2015 to 2021, actual disbursements decreased to US \$8.1 billion in 2021 out of US \$235 billion.⁵
- SDG target 6.b aims to support local engagement in water and sanitation management. In 2022, over two-thirds of the 123 countries reporting have participation from communities in all water and sanitation subsector decision-making. However, high levels of community and user participation in collaborative management and decision-making are found in only 15 per cent of those countries.

The urgency to address SDG 6 is critical. An inability to achieve SDG 6 jeopardizes overall sustainable development. From a human rights standpoint, SDG 6 is not merely about fulfilling the basic human rights of water and sanitation, but other human rights as well, such as the rights to food, a healthy environment, women's rights, Indigenous rights, amongst others. SDG 6 is also a lynchpin in the fight for global health, gender equality, and sustainable and resilient development. Billions worldwide still lack fundamental drinking water and sanitation services, leading to preventable diseases like cholera. The delay in addressing this crisis results in unnecessary suffering and preventable loss of life, especially children, putting immense

⁵ OECD, 2023. Common Reporting Standard. Available from <https://www.oecd.org/tax/automatic-exchange/common-reporting-standard/>

pressure on health systems and contributing to the rise in global migration.⁶ SDG 6's importance also extends to economic development, education, environmental management, economic growth, human mobility, and to peace and security. Sustainable and risk-informed water resource management is crucial for both climate change mitigation and adaptation, as well as long-term resilience.

2023 Voluntary National Reviews (VNRs)

Out of the 39 Member States and the European Union that will present VNRs at HLPF 2023, reporting on their progress on SDGs, almost half referenced water and/or sanitation in their main messages presented prior to the Forum.⁷

Several countries mentioned having made substantial advancements in improving access to clean water and sanitation. In Brunei Darussalam, investments in water and sanitation infrastructure have notably improved livelihoods. Burkina Faso, Cambodia, Rwanda and Tajikistan have made progress on SDG 6, increasing access to drinking water and sanitation. The Central African Republic has particularly improved drinking water accessibility for women and youth who are typically responsible for water provision. Chile is implementing significant environmental plans and strategies, including water governance, while Croatia is advocating better waste and water management through its digital transformation, demographic renewal, and green transition initiatives.

Access to water continues to be a pressing issue in the Democratic Republic of Congo, especially in rural areas, leading to the liberalization of both sectors. Fiji and Guyana have made strides in providing drinking water and sanitation services to their citizens, though challenges such as ageing infrastructure persist. In Iceland, Mongolia, Saudi Arabia and Singapore, plans are in place or progress has been made towards water conservation and sanitation improvement. Slovakia considers water a strategic resource and shows good performance on SDG 6. Countries such as St Kitts & Nevis and the United Republic of Tanzania have recognized the importance of water security, with St Kitts & Nevis focusing on groundwater protection and Tanzania ensuring access to clean water for all.

COVID-19 pandemic and the role of water

The theme of HLPF 2023, “Accelerating the recovery from the coronavirus disease (COVID-19) and the full implementation of the 2030 Agenda for Sustainable Development at all levels,” reflects the work that still needs to be done for the world to build back better after the devastating COVID-19 pandemic and increase resilience to the threat of future pandemics. The virus has profoundly impacted the world, exposing vulnerabilities in our health, economic, and social systems. As nations grapple with the effects of the pandemic, there is an opportunity to redefine and reshape our recovery strategies to be more sustainable, where water and sanitation can not only help overcome the pandemic, but also build greater resilience.

⁶ World Bank, 2021. “Going With the Flow: Water’s Role in Global Migration.” Available from <https://www.worldbank.org/en/news/feature/2021/08/23/going-with-the-flow-water-s-role-in-global-migration>.

⁷ United Nations, 2023. Voluntary National Reviews. Available from <https://hlpf.un.org/vnrs>.

The COVID-19 pandemic magnified the need for access to and accessibility of clean water, sanitation and hygiene in combating the spread of the virus and facilitating recovery. Clean water is essential for maintaining hygiene, preventing infection, supporting healthcare facilities and absorbing nutrients in food. The pandemic has demonstrated the urgency of universal access to clean water, and addressing water scarcity can significantly contribute to overcoming COVID-19 and building resilience to future crises. Sustainable local food systems, supported by equitable water access and integrated water resources management, are equally crucial in securing reliable food supplies during pandemics, a clear lesson from the COVID-19 crisis.

Handwashing with soap and water is a critical measure for preventing the spread of COVID-19. However, billions of people worldwide lack access to clean water and sanitation, hindering their ability to protect themselves and their communities from the virus. Prioritizing investments in water and sanitation infrastructure can improve public health, reduce the spread of the virus, and support economic recovery by reducing the burden of waterborne diseases.

Healthcare facilities require a continuous supply of clean water for patient care, hygiene, and sanitation. However, many facilities, especially in developing countries, struggle with inadequate water supply and infrastructure. Expanding access to clean water in healthcare facilities can enhance the capacity to treat COVID-19 patients, reduce the risk of healthcare-associated infections, and promote overall public health.

While COVID-19 is primarily transmitted through respiratory droplets, traces of the virus can also be found in human waste or wastewater. As a result, wastewater surveillance has been employed as a non-invasive epidemiological tool during the pandemic. By testing samples from sewage systems, researchers can detect the presence of COVID-19 in a community, offering an early warning system for outbreaks even before clinical cases are detected. This method has the potential to be particularly effective for identifying asymptomatic or pre-symptomatic infections that might otherwise go undetected.

Climate change exacerbates water scarcity and increases the frequency and intensity of water-related hazards, such as floods and droughts, as well as displacement and migration driven by them. If not managed properly, such hazards can turn into disasters that can undermine public health, food security, peace and security and economic stability, further complicating the recovery from COVID-19. By prioritizing climate-resilient and risk-informed water management strategies and infrastructure development, reliable food systems, and promoting water cooperation, countries can enhance their capacity to adapt to changing conditions and reduce the impacts of water-related hazards.

Addressing COVID-19 in the Water Action Agenda

With the impacts from the COVID-19 pandemic still very much a reality worldwide, the voluntary commitments submitted as part of the Water Action Agenda for the UN 2023 Water Conference captured some of the initiatives taking place to prevent and monitor the spread of the virus and help with the recovery and “building back better” from its effects. Three commitments stand out in addressing these issues:

- *European Union commitments on water as a human right and water for health (European Union)*: Assisting EU Member States by providing €20 million in funding to hasten the implementation of wastewater surveillance for COVID-19, which includes setting up national systems, local gathering sites, and digital infrastructure for tracking SARS-CoV-2, in addition to giving an extra €3 million to adjacent countries.⁸
- *International High-Level Panel on Water Investments for Africa (African Union Commission)*: The Panel will augment initiatives to fulfill the continent's socio-economic requirements, water-related SDG targets, and confront the twin challenge posed by climate change and the COVID-19 pandemic.⁹
- *100 million people: Accelerating impact in Sanitation and Hygiene (Lixil)*: SATO Tap was designed as a cost-effective handwashing tool, intended for home or local community use, to aid in mitigating the spread of COVID-19. Utilizing water from a plastic bottle of different forms and capacities, SATO Tap employs the force of gravity to dispense a consistent, yet minimal flow of water.¹⁰

Actions to maximize synergies with the other SDGs under review (7, 9, 11 and 17)

Water is related to almost all SDGs and the achievement of SDG 6 is critical to the implementation of all other SDGs. The interlinkages between SDG 6 and the other SDGs under review highlighted here. The other SDGs under review during HLPF 2023, SDG 7 (affordable and clean energy), SDG 9 (industry, innovation and infrastructure), SDG 11 (sustainable cities and communities) and SDG 17 (partnerships for the Goals), all have strong links to water. By maximizing the synergies between SDG 6 and these other SDGs, utilizing cross-sectoral cooperation, advances can be made across the different themes.

The interlinkages between SDGs 6, 7, 9, 11, and 17 underscore the need for an integrated, cross-sectoral approach to sustainable development. The myriad interdependencies between water, energy, industry, urbanization, and partnerships reveal that progress in one area can stimulate advances in others, demonstrating the potential for leveraging synergies across the SDGs to accelerate progress. However, these interlinkages also imply potential trade-offs, underscoring the importance of integrated planning and coordination.

SDG 7's objective is to guarantee access to affordable, reliable, sustainable, and modern energy for all. The relationship between SDGs 6 and 7 is embodied in the water-energy nexus, which recognizes that water is crucial for energy production, and conversely, energy is essential for

⁸ United Nations, Department of Economic and Social Affairs, 2023b. "European Union commitments on water as a human right and water for health." Available from <https://sdgs.un.org/partnerships/eu-commitments-water-human-right-and-water-health>.

⁹ United Nations, Department of Economic and Social Affairs, 2023c. "International High-Level Panel on Water Investments for Africa." Available from <https://sdgs.un.org/partnerships/international-high-level-panel-water-investments-africa>.

¹⁰ United Nations, Department of Economic and Social Affairs, 2023d. "100 million people: Accelerating impact in Sanitation and Hygiene." Available from <https://sdgs.un.org/partnerships/100-million-people-accelerating-impact-sanitation-and-hygiene>.

water extraction, treatment and distribution.¹¹ For example, hydroelectric power generation is primarily dependent on water availability, while innovative solar and wind technologies are required for accessing and cleaning water in a more carbon-neutral manner. Energy-efficient practices and technologies can significantly reduce the water footprint of energy production, while water-efficient technologies can reduce the energy footprint of water supply and use, underscoring the mutual benefits of integrating SDGs 6 and 7 in policy and practice.

SDG 9 calls for building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation. Water is a cornerstone of this goal. It is a fundamental input for most manufacturing processes, is used extensively for cooling in thermal power production, and is a key component in the construction of infrastructural projects.¹² Moreover, innovative technologies and approaches in water management, such as desalination and wastewater recycling, can significantly enhance water security and contribute to achieving SDG 6. At the same time, innovative technologies can decrease the demand for energy production for these solutions, thereby supporting SDG 7.

At the same time, the role of innovation (SDG 9) cannot be overstated. Innovative technologies and practices in water management, renewable energy production, and urban planning can significantly enhance the sustainability and resilience of societies. Moreover, open data and digital technologies, such as big data and artificial intelligence, offer unprecedented opportunities for optimizing resource use and improving decision-making processes in these areas.¹³ They can build and scale up traditional forms of knowledge around water supply management.

SDG 11 aims to make cities and human settlements inclusive, safe, resilient, and sustainable. The rapid urbanization trend worldwide has placed tremendous strain on water resources, with cities requiring more water for their growing populations and producing more wastewater¹⁴ while also urban growth negatively impacting ecosystem services such as aquifer recharge and flood mitigation. Sustainable urban water management is essential for the realization of SDG 11 and is intrinsically linked with SDG 6. Moreover, the concept of smart cities, central to SDG 11, leverages digital innovation (SDG 9) to optimize the use of resources, including energy (SDG 7) and water, thereby demonstrating the potential for synergies across multiple SDGs. Climate change exacerbates challenges of urbanization, with increasing risks and more intensive impacts of flooding, heat, and droughts. Integrated urban and basin management and nature-based solutions hold great promise to support more resilience of growing cities.

SDG target 11.5 specifically references water: “By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses

¹¹ IEA, 2016. Water Energy Nexus, Paris, IEA.

¹² UNESCO, UN-Water, 2020: United Nations World Water Development Report 2020: Water and Climate Change, Paris, UNESCO.

¹³ OECD, 2019. Digital Innovation: Seizing Policy Opportunities. Available from https://read.oecd-ilibrary.org/science-and-technology/digital-innovation_a298dc87-en#page1

¹⁴ United Nations, 2021. The United Nations World Water Development Report 2021: Valuing Water. UNESCO, Paris.

relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.” Water-related disasters, such as flooding, tsunamis, and landslides, frequently result in considerable loss of life and substantial economic damage. The threat of these disasters is exacerbated by climate change, which is predicted to increase the frequency and intensity of extreme weather events such as severe storms and heavy rainfall. According to the Mid-term Review of the Sendai Framework for Disaster Risk Reduction, SDG target 11.5 is far from being met.¹⁵

Lastly, SDG 17 underlines the vital role of partnerships in achieving the SDGs. Tackling complex, water-related challenges necessitates collaboration across sectors, borders and disciplines, encompassing governments, the private sector, civil society, and academia. These partnerships can facilitate knowledge exchange, capacity building and the mobilization of resources for sustainable water management, renewable energy solutions, and the development of smart and sustainable cities.

However, especially as the world moves away from the gains in sustainability made during the COVID-19 pandemic, the realization of these opportunities is not automatic and requires proactive policies and investments, and the assurance of equal access to technologies and their benefits. This is where SDG 17 comes in, emphasizing the need for partnerships at all levels - from local to global - to mobilize resources, build capacities, and foster the exchange of knowledge and best practices.

Many connections exist, both in terms of synergies and trade-offs, between the targets of SDG 6 and targets of the SDGs under review at HLPF 2023. The below table includes examples of links between these targets:¹⁶

Figure 1: Examples of the linkages between SDG 6 targets and selected targets under SDGs 7, 9 and 11

SDG target	6.1	6.2	6.3	6.4	6.5	6.6
7.1, 7.2 ... ensure universal access to ... energy services / ... increase substantially the share of			Clean energy for water treatment; wastewater treatment for energy production	Renewable energy and water conservation; water efficiency in energy services	Energy production; integrated planning; hydropower sharing agreements in	Renewable energy impacts on freshwater ecosystems; freshwater ecosystems and climate

¹⁵ UNDRR, 2023. The Report of the Mid-term Review of the Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030. UNDRR: Geneva, Switzerland.

¹⁶ Targets addressed in the table were determined by the strong interlinkages identified in UN-Water, 2016. *Water and Sanitation Interlinkages across the 2030 Agenda for Sustainable Development*. Geneva. Available from <https://www.unwater.org/publications/water-and-sanitation-interlinkages-across-2030-agenda-sustainable-development>.

renewable energy					transboundary basins	change mitigation
7.3 double ... improvement in energy efficiency			Energy production and energy efficiency in wastewater treatment processes; impacts on water quality	Energy efficiency and water use efficiency, both directions;	Sustainable and equitable use of water for hydropower; water use and bioenergy	Efficiency of hydropower and ecosystems; ecosystem services and energy needs
9.1 Develop... resilient infrastructure... regional and transborder infrastructure	Drinking water services infrastructure that can withstand shocks and stresses, including from climate change	Sanitation services and facilities infrastructure that can withstand shocks and stresses, including from climate change	Wastewater treatment facilities that can operate under shocks and stresses, including from climate change	Infrastructure that minimizes water loss and waste under shocks and stresses, including from climate change	Infrastructure that can monitor and manage water under shocks and stresses, including from climate change	Infrastructure impacts on freshwater ecosystems; nature-based solutions
9.2 Promote ... sustainable industrialization and ... significantly raise industry's share of employment and gross domestic product ...			Wastewater treatment processes and the prevention of pollution	Water use efficiency in industries; environmental footprints; recycling water/water reuse		Industrial impacts on freshwater ecosystems (pollution, extraction, etc.)
9.4 ... upgrade infrastructure and retrofit industries to make them sustainable , with increased resource-use efficiency and... environmentally			Waste production; wastewater treatment; use of chemicals	Water use efficiency in industries	Water stewardship; water management planning; local impacts of water use	Protection and restoration of freshwater ecosystems; pollution control; sustainable water use

sound... processes...						
11.1 ... access for all to adequate, safe and affordable housing and basic services	Access to safe and affordable drinking water services in housing	Access to sanitation services in housing	Water quality and wastewater management for public health	Water use efficiency in urban areas for increased access	Resilient urban water systems; balancing water needs in urban areas	Ecosystem services for urban areas (filtration; flood mitigation, etc.)
11.3 ... enhance inclusive and sustainable urbanization and capacity for ... human settlement planning and management ...	Water supply infrastructure in urban/peri-urban planning	Sanitation facilities accessible to all in urban/peri-urban planning	Urban planning inclusion of water quality management and wastewater treatment	Urban planning inclusion of water use efficiency to reduce water losses and waste	IWRM in urban planning to balance water needs and risk reductions	Integration of freshwater ecosystem protection and restoration in urban planning
11.6 ... reduce ... per capita environmental impact of cities ... paying special attention to air quality and municipal and other waste management	Drinking water quality; environmental impacts of purification for drinking water	Waste management; environmental pollution	Wastewater treatment; water reuse	Water use efficiency and environmental impacts	IWRM and sustainable urban environments	Protection of freshwater ecosystems; biodiversity; resilience; environmental impacts
11.7 ... provide universal access to ... green and public spaces			Water quality and public spaces	Water use efficiency in public spaces	Balancing water needs across urban areas, including public spaces	Preservation of natural environments in public spaces

Blueprint for Acceleration: UN-Water SDG 6 Synthesis Report on Water and Sanitation 2023

On the occasion of the HLPF 2023, when SDG 6 is under a more in-depth review, UN-Water, the United Nations’ inter-agency coordination mechanism on water, comes together to report on the progress of SDG 6 and look at what needs to be done for its realization. The first SDG 6 Synthesis Report was published in 2018 and found that the world was off-track for achieving the goal. With the second report being presented at HLPF 2023 and the world still off-track,

the report will focus on the SDG 6 Global Acceleration Framework’s five “accelerators,” namely financing, data and information, capacity development, innovation and governance, and how the UN system can respond to significant gap in the SDG 6’s targets and facilitate the implementation of the commitments pledged for the Water Action Agenda at the UN 2023 Water Conference by United Nations organizations, Member States and other stakeholders.

Proposed guiding questions

- We are alarmingly off-track to achieve SDG 6. What are some unique ideas that we have not heard already that you could propose, or lessons learned from your experiences, to accelerate progress?
- There is a set of commitments in the Water Action Agenda coming out of the UN 2023 Water Conference. How can your organization support and/or facilitate its implementation?
- We are still building back from the COVID-19 pandemic. How can water, and its link to other SDGs, be a part of this process and facilitate building back better for greater resilience in the future?
- What work is your organization doing on cooperating between SDG 6 with SDGs 7, 9, 11 and 17?
- Given water’s role underpinning the entirety of the 2030 Agenda, how should the SDG Summit address water issues so that the gap implementing SDG 6 can be closed?
- How should the financing gap to achieve SDG 6 be bridged and what interventions should be prioritized?