

WATER SUPPLY, SANITATION AND HYGIENE KEY MESSAGES AND BRIEFING TO COP28 DELEGATIONS¹

This briefing is structured among the three key tracks of climate negotiations at COP28: 1) Adaptation-Resilience; 2) Mitigation; 3) Climate Financing. It provides key insights on water supply, sanitation and hygiene across those three tracks for the benefit of COP28 country delegations. Its primary expected audience is water, sanitation, hygiene and health partners that are part of COP28 preparations and/or willing to brief climate counterparts and negotiators involved in COP28 discussions and negotiations.

0. INTRODUCTION

The [Climate Paris Agreement](#) aims to strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty. Water is the primary medium through which we feel the effects of climate change. Because of that, water is normally part of climate strategies and plans. However, climate planners, water managers and health authorities need to understand better the interconnectivities between climate change, water as a resource, and the basic social services that depend on it – importantly, drinking water, sanitation and hygiene services - and the fallout for health and societal resilience of climate-related service loss.

The first Global Stocktake of the implementation of the Paris Agreement will conclude at COP 28. Each stocktake is a two-year process that happens every five years, with the aim of assessing the world's collective progress towards achieving its climate goals (i.e., keeping the global temperature increase below 1.5 C, and progressing towards a Global Goal on Adaptation). This first Global Stocktake takes place at the mid-point in the implementation of the 2030 Agenda for Sustainable Development and its SDGs, including Goal 13 (climate action).

There are clear impacts of climate change on water-sanitation-hygiene services exposing vulnerable populations, but there are also huge opportunities to contribute to global mitigation and adaptation goals by building a low carbon and climate resilient water and sanitation sector.

First, the bad news. Droughts mean less water is available for different users and uses increasing the risk of conflict, and lack of water inhibits good sanitation and hygiene practices. Floods lead to water contamination and heavy rainfall favor vector-borne diseases, with consequent health impacts. Ice melting represents an unsustainable loss of a key drinking source for many millions of people, and sea level rise leads to both coastal wastewater treatment plant inundation and salinization of aquifers in coastal areas – from which a large amount of the global population relies on for drinking. Finally, water and sanitation infrastructure and service disruptions after climate shocks come at a huge economic and psycho-social cost.

The good news is that investing in low carbon and climate resilient water and sanitation services is a key part of the solution to the global climate crisis. In the [Race to Resilience](#) and [Race to Zero](#), businesses, cities, regions, health facilities, investors and civil society are acting fast to transform the prospects of billions of people. Beyond the finish line a safer, healthier, more sustainable and cleaner world awaits.

¹ This document is fruit of a collaboration of the members of the SWA Task Team on Climate Action.

All these issues will be largely discussed throughout the thematic daily discussions at the COP28 Water Pavilion².

COP28 Presidency: Key points to consider on water supply-sanitation-hygiene

- The COP28 Water Agenda (driven by COP28 Presidency) identifies three priority areas for programming during COP28's two-week thematic program: conserving and restoring freshwater ecosystems; enhancing urban water resilience; and bolstering water-resilient food systems.

While water supply and sanitation feature strongly in the theme of Urban Water Resilience there are important sector contributions towards the other two tracks. Indeed, ensuring that water-sanitation infrastructure, services and behaviours are sustainable, safe and resilient to climate related risks goes hand in hand with the sustainable use, protection and management of surface and groundwater resources, and resilient safe wastewater management. Also, resilient water supply and sanitation programmes need to aim at fostering public health, but also income generation, food (e.g. through safe reuse of wastewater), energy and ecosystem resilience to maximize synergies in building community resilience to adapt to the impacts of climate change.

- The COP28 Presidency has announced a partnership with the co-hosts of the UN 2023 Water Conference, Netherlands and Tajikistan, who will serve as COP28 Water Champions to help lead the Water Agenda.
- COP28's two-week thematic program includes a special day (December 10th) dedicated to exploring climate action across food, agriculture, and water.

1. ADAPTATION-RESILIENCE

The **article 7 of the Paris Agreement** establishes the Global Goal on Adaptation (GGA) of “enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development”. However, that is a high-level statement that offers great difficulties on how to track its progress. To address that, at COP26, countries established the **two-year Glasgow-Sharm el-Sheikh Work Programme on the Global Goal on Adaptation (GGA)** to enhance and support adaptation action through a country-driven process. This programme ends its mandate at COP28 where climate negotiators are expected to deliver a GGA Framework. The draft structure of the framework comprises at the moment: a) adaptation dimensions across the adaptation policy cycle; b) adaptation across a set of themes (current negotiations include “water” and “freshwater ecosystems” themes; and, c) adaptation cross-cutting considerations.

In June 2023, SWA and partners have made a formal input, for consideration of the GGA Work Programme, suggesting a strong incorporation of water supply, sanitation and hygiene in the GGA Framework. This includes setting adaptation thematic targets. The formal submission can be accessed [HERE](#).

² Link to Water Pavilion website with programming coming soon.

Support to strong and ambitious adaptation targets towards resilient water supply-sanitation-hygiene services in communities and health facilities makes sense from a financial point³ of view, both for governments and users. It fosters community resilience by reducing human, social, environmental and physical vulnerability and enables safe healthcare. It also contributes to avoid or reduce conflict in areas affected by water scarcity, including vast areas of the Sahel, the Middle East, or the Dry Corridor in Central America (to name a few). It provides an opportunity to policy makers and service providers to rethink access to basic services, adhere to a circular economy and green growth, and improve several pending aspects of service provision.

Key asks to climate negotiators as they finalize the shaping of the Global Goal on Adaptation (GGA) Framework:

1. **Consider the concrete and measurable adaptation targets that have been proposed by SWA Partners for 2028 (this includes communities and health facilities):**
 - **All communities living in the overlap of insufficient water, sanitation and hygiene access and high climate hazard exposure have been targeted with climate resilient water, sanitation and hygiene services**
 - **All new water, sanitation and hygiene services for those with insufficient access are planned, built, and operated on the basis of a climate risk analysis and are resilient to climate change**
 - **All existing water, sanitation and hygiene services in areas highly exposed to climate hazards have been upgraded and retrofitted**
 - **All countries halve the proportion of untreated wastewater and support resilience in industry and food production by substantially increasing recycling and safe reuse**
 - **All countries implement water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity**
2. **If adaptation target setting per theme is not feasible by COP28, consider the extension of the mandate of the GGA Work Programme to launch a technical process and consultation that consolidates adaptation targets for each of the thematic areas agreed (including water-sanitation).**

Key lessons learned and good practices from water and sanitation to inform the shaping of the Global Goal on Adaptation (GGA):

The UNICEF-WHO [Joint Monitoring Programme \(JMP\)](#) has reported country, regional and global estimates of progress on drinking-water, sanitation and hygiene (WASH) since 1990, and is responsible for monitoring the global SDG indicators for targets 6.1 and 6.2 on drinking-water and sanitation. The JMP maintains extensive global databases and is currently working to address the global monitoring of climate resilience in the sector. This workstream could be directly linked to the shaping of the GGA and how to monitor progress.

³ According to a recent [World Bank study](#) the cost of building the resilience of infrastructure assets in low- and middle-income countries is small compared with total infrastructure needs. The incremental cost of protecting new exposed water and sanitation assets would be between \$0.9 billion and \$2.3 billion a year. While not negligible, these investments represent around 1 percent of baseline infrastructure investment needs and would reduce the risk of damage to new infrastructure by 50 percent.

2. MITIGATION

Parties to the Paris Agreement will perform a “global stocktake” at COP28 for the first time, outlining the achievements of each nation’s Nationally Determined Contributions (NDCs), or pledges to reduce emissions.

As alerted by the Intergovernmental Panel to Climate Change (IPCC) latest assessment report, the target of keeping the temperature below an increase of 1.5 degrees Celsius is far from reach, and the planet will consume the remaining quota of carbon emissions budget as early as 2030.

The COP28 therefore, holds great importance as the global stocktake provides an opportunity for nations to re-evaluate and strengthen their commitments to combat climate change. The ideal outcome should be a united global response that not only identifies gaps but also sets forth a roadmap for swift action. This action plan must encompass transitioning to low-CO₂ societies, prioritizing the health and well-being of nature, people, livelihoods and ensuring inclusivity. It is important to consider that [new evidence](#) demonstrates that sanitation is much more important in terms of emissions⁴ than we previously thought (GHG emissions of the water and sanitation sector estimates exceed those of the aviation industry).

It is expected that COP28 political messages around the conclusions of the first stocktake will call for urgent action to revise the ambition of the NDCs.

Key asks to climate negotiators to help raise the mitigation ambition in the NDCs through water and sanitation services:

- 1. Negotiators at COP28 should consider that sanitation has been omitted in the NDCs up to now. Prioritizing the most appropriate types of sanitation and wastewater treatment processes and management practices in revised NDCs (towards the Second Global Stocktake) will provide countries with major new opportunities to cut greenhouse gases emissions, enable energy recovery while also increasing resilience of sanitation systems.**
- 2. There are also untapped opportunities for mitigation by improving water-sanitation services energy efficiency, the efficiency of the system itself, by ensuring where possible the use of renewable energy (e.g., solar and wind energy) for water and sanitation operations, and by considering the benefits of nature-based solutions.**

Concrete actions to include in updated NDCs (based on each national context):

- **Limit the release of greenhouse gases (e.g., methane, nitrous oxide) from wastewater and excreta into the atmosphere by choosing the most appropriate types of treatment scales and technologies, and modifying operational parameters and management practices (e.g., biogas recovery in wastewater treatment plants).** Note: Reducing emissions from onsite sanitation requires active management and treatment of fecal sludge.
- **Achieve net zero (or even positive) wastewater plants through appropriate treatment and recuperation of biogas, and other byproducts.**
- **Ensure, where possible and appropriate, the use of renewable energy (e.g., solar and wind energy) for water and sanitation operations to reduce GHG emissions.**
- **Prioritize the improvement of the energy efficiency of water and sanitation operations and processes (e.g., pumps, generators, etc.).**

⁴ Methane is the biggest contributor to overall GHG emissions in onsite systems. For centralized it is also nitrous oxide (this area is the subject of emerging research to better understand these emissions and how they can be reduced or controlled/recovered).

- **Include measures for improving water and energy efficiency by introducing water saving technologies, such as water meters, water efficient house appliances, rainwater harvesting and safe greywater reuse for other uses such as gardening.**
- **Prioritize the reduction of leaks on the water distribution networks to increase water efficiency so less energy is consumed for pumping and more water is available.**

3. CLIMATE FINANCE

Financial mechanisms and resources used to assist climate change action are referred to as climate finance. Developed nations have historically made major contributions to climate change Paris Agreement pledge to raise 100 USD billion annually to support climate action in low-income countries. COP28 will work to ensure that this target, which was supposed to be achieved in 2020 is finally delivered.

COP28 Presidency has expressed that climate finance is nowhere near available enough, accessible enough and affordable enough – especially for low- and middle-income countries. To make finance more available, COP28 presidency wants to prioritize discussions on how to attract much more private capital into the investment pool. Private capital is perceived as the force multiplier that can really change the game when it comes to effective climate finance.

To make climate finance more accessible, COP28 wants to lead discussions to simplify, speed up, and standardize access to climate funds across international financial institutions and specialized funds.

In this context, the water and sanitation sector is able to contribute to achieve the Paris Agreement goal of mobilising USD 100 billion per year to address the pressing mitigation and adaptation needs of developing countries by supporting the mobilization of climate finance. In this regard the WASH sector is working to make investments in climate resilient water and sanitation attractive, and is exploring new avenues to team up and work with climate financiers.

Based on all the above, there is a **request for climate planners and policy makers to successfully accelerate adaptation and mitigation in the water and sanitation sector as a key pathway to move the global climate agenda.**

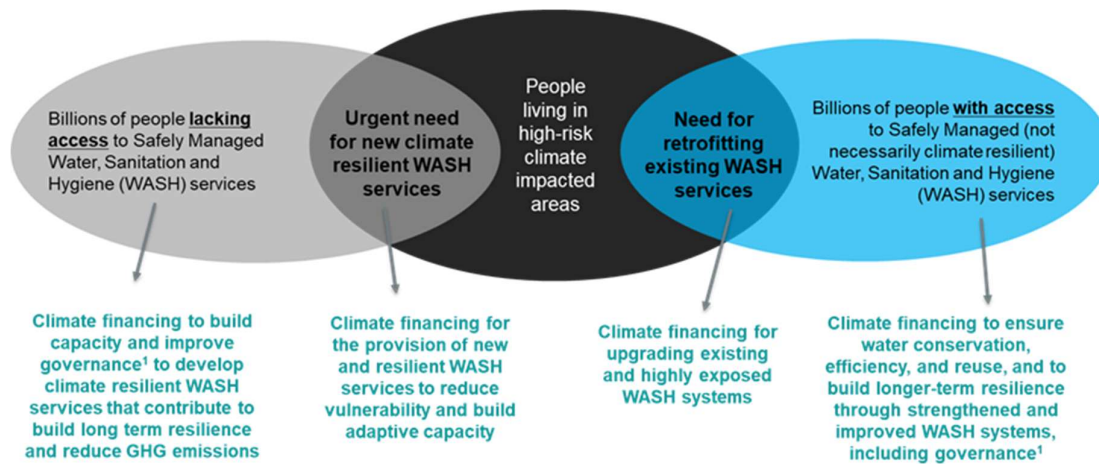
Key asks to climate negotiators to direct adequate climate finance towards low carbon and resilient water and sanitation services for communities and health facilities:

- 1. Direct climate finance efforts (blending with water and sanitation finance) to identify and prioritize investment in areas where high exposure to climate hazards overlap with low access to water-sanitation-hygiene services, especially in the least developed countries, for disadvantaged groups and rural areas (e.g., those that have contributed least to climate change).**
- 2. In areas highly exposed to hazards and with existing services, direct climate finance to identify and then retrofit existing water-sanitation services to make them more resilient, avoiding service disruptions, failures and public health risks due to climate events and reducing disaster response costs.**
- 3. Investing in an enabling environment conducive to climate resilient water and sanitation services, including adequate wastewater management (i.e., supporting water-sanitation sector policies and strategies that incorporate climate aspects and cross-sector collaboration; contributing to regulation and institutional arrangements; supporting**

planning and monitoring; and strengthening the sector capacities in areas related to climate resilience)

4. Direct climate finance to ensure water conservation, efficiency and reuse, and to build longer-term resilience through strengthened and improved water and sanitation service delivery.

Figure 1. WASH Sector Contributions to Water Security through Climate Financing



Related documents:

- [The overlooked solution: strengthening climate resilience through sanitation systems](#) (WaterAid, 2023)
- [Sustainable sanitation and gaps in global climate policy and financing](#) (Sarah Dickin et. Al. 2020)
- [Unpacking freshwater’s role in climate change mitigation](#). Note: see chapter 4 for WASH and Mitigation (SIWI, 2022)
- [Climate Change Impacts on Urban Sanitation: A Systematic Review and Failure Mode Analysis](#) (Hyde-Smith, et. Al. 2022)
- [Why Water Sanitation and Hygiene must be Top of your Climate Agenda](#) (UNICEF, 2022)
- [Adapting to climate change and fostering a low carbon water and sanitation sector](#) (SWA, 2019)
- At COP27, Sanitation partners released a [Call to Action](#) for all stakeholders to collaborate in ensuring the resilience of sanitation systems to maximize the public health outcome and explore the opportunities of reducing emissions along the sanitation service chain.
- At COP27, GWP and UNICEF launched an updated version of the [Strategic Framework for Climate Resilient WASH](#)

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