# THEMATIC CONCEPT PAPER

# **Interactive Dialogue 1**

Water for Health: Access to WASH, including the Human Rights to Safe Drinking Water and Sanitation (SDG 6.1, 6.2, 6.3 and SDGs 1, 3, 4, 5, 17)

#### Introduction

- Safe drinking water and sanitation is the foundation of a healthy and dignified life.
- The COVID-19 pandemic has made clear the fundamental role that sanitation and hygiene play in stopping the spread of diseases. However, it has also exposed the vast **inequities that exist in access to sanitation, hygiene and menstrual health**. Inadequate water, sanitation and hygiene (WASH) disproportionately affects the most vulnerable and disadvantaged, particularly women and people living with disabilities.
- The current health crisis shows multiple inter-connected risks and vulnerabilities. Safe sanitation systems and services are essential for health.
- The absence of adequate access to water and sanitation has not only severe consequences on health, it also hinders access to education, decent working conditions, economic and social rights, etc. illustrating the fact that the **different rights are interconnected**.
- The acceleration of the implementation of the **human rights to water and sanitation** is all the more important as water scarcity is often more an issue of power, poverty and inequality, rather than of physical availability.

#### Overview of the challenge, current status and interlinkages

- The immediate area of public health concern **is microbial contamination** through water, which can affect large number of people. Indeed, and while reliable data with regard to the quality as well as the source of water is still globally lacking, the Global Burden of Disease Study showed that 1.2 million people died in 2017 due to **water-related diseases**.
- Given that the majority of the freshwater reserves are found underground and that it's monitoring and management is complex due to its invisible nature, **groundwater contamination** should be of more significant concern. Yet **reliable data** and the number of research work is comparatively **less for groundwater**.
- **Inadequate sanitation** poses serious health risks and increases vulnerabilities, from contaminated drinking water to the life-threatening form of diarrhoea, particularly for poorer segments of the population, who are most exposed to inadequate human waste disposal. And yet **donors tend to prioritize water over sanitation**.
- Poor sanitation can result in significant costs: health care costs, income losses associated with sickness, loss of productivity, and coping costs resulting from environmental and water resource pollution such as water treatment.
- The economic losses associated with poor sanitation are estimated by WHO at USD 222 billion per year in lost productivity, increased health expenditures, and decreased economic output.
- While the links between SDG6 and all the other goals are well understood, some targets show that there may be aspects of both synergies and potential conflicts that have to be managed in order to meet the goals. **Integrated Water Resources Management** (IWRM) provides a

framework **for addressing many of the linkages** by balancing the needs of different sectors and stakeholders within and throughout sectors.

# Overview of opportunities for progress and transformative solutions

- Focusing exclusively on access to water and basic sanitary facilities is not sufficient: the long-term availability of water can only be secured by **adopting an integral approach to water usage and the water cycle**. This implies: treating waste water, promoting the assumption of responsibility by all individuals and bodies, supporting efforts to reduce water consumption, loss, pollution and overexploitation, applying the « polluter pays principle » wherever possible, bringing future supply and demand for water into line with the changes brought about by climate change, etc.
- A systematic approach is vital to take account of the complex dependencies and interactions. This implies: promoting the integrity of ecosystems and their functional viability, ensuring that the role and importance of water is adequately taken into account in key areas, such as agriculture and food systems or urban planning, promoting awareness of the importance of water to all other SDGs and also to the implementation of the 2030 Agenda.
- Encouraging the appreciation of the value of water in all of its dimensions is also critical to its protection. This implies: contributing towards ensuring the provision and use of water of adequate quality and quantity is reasonably priced, with tariffs that are affordable while allowing utilities to be financially viable; working to ensure governments and companies primarily see water as an asset which must be managed carefully, sustainably and fairly, etc.
- Sustainable solutions to WASH access require an **inclusive approach**. This implies: promoting the voices of all stakeholders and particularly those of women, young people, disabled and disadvantaged groups, fostering dialogue between the generations, strengthening relevant networks and creating opportunities to participate in normative processes and negotiations.
- Water security should not only be looked at as a risk but also as an opportunity with implications such as such as improving food security and nutrition, de-risking through joint institutional/transboundary cooperation frameworks or investing in new tech companies providing efficient irrigation technology, low-energy desalination technology, etc.
- **Public-private partnerships (PPPs)** offer possible solutions for governments seeking to achieve better value for money and fund the investments needed to provide infrastructure and manage public services.

## Recommendations

- Access to WASH must place particular emphasis on handwashing and menstrual health and hygiene (MHH), which are too often overlooked yet essential components of public health. MHH is key to the well-being and empowerment of women and adolescent girls and as a multi-dimensional issue requires multi-sectoral interventions (information & education, infrastructure and menstrual products, political advocacy, etc.).
- WASH must be looked at as having value and opportunity for individuals, the economy and the environment. Knowing this value helps governments and investors to see the task of improving WASH as not only an opportunity for building human capital but also for accelerated economic growth and job creation.
- Innovative financing mechanisms and strengthening investment readiness by both governments and the private sector are needed to scale up solutions to close the gaps in WASH services.

Swiss voluntary commitment: In line with the above recommendations, Switzerland has just approved a financial contribution of CHF 16'000'000 for the next four years to The Sanitation & Hygiene Fund (SHF). This contribution aims to support six African countries to implement their national sanitation plans to achieve SDG 6.2 by catalyzing national sanitation economies and creating investment opportunities. The SHF also seeks to create a multiplier effect by working with multilateral development banks (currently exploring a co-venture with the African Develop-ment Bank to operationalize the African Urban Investment Fund), and with the private sector, including SMEs.

## **Guiding Questions**

- What needs to be done differently?
- What should be done to reach those who are discriminated?
- How can we successfully close the financing gap?
- How can WASH policies integrate more climate resilience?

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# **Interactive Dialogue 2**

Water for Sustainable Development: Valuing Water, Water-Energy-Food Nexus and Sustainable Economic and Urban Development (SDG 6.3, 6.4, 6.5 and SDGs 2, 8, 9, 11, 12);

## Introduction

- Achieving sustainable and equitable water resources management and the relevant SDGs can
  only be done through the recognition and integration of water's worth into decisionmaking.
- Valuing water means recognizing and considering all the diverse benefits and risks provided by water, and encompassing its economic, social, and ecological dimensions as well as its diverse cultural and religious meanings.
- Valuing water is becoming ever more important as its scarcity increases and quality decreases.
  - Collaboration is required with all relevant stakeholders, within the water sector and across all other relevant sectors, to encourage science to provide up to date data and governments, industries and civil society to bring about the systemic change required to understand, value and manage water to ensure a water-secure world.
- Water, food and energy form a nexus at the heart of sustainable development. We are highly dependent on water to ensure food security and nutrition the largest share of the world's freshwater resources being used for agriculture, and water is used to produce most forms of energy.
- Water is at the core of sustainable urban development: livable and sustainable cities around the globe require reliable clean water supplies, proper sanitation and sewerage treatments.

#### Overview of the challenge, current status and interlinkages

- **Increasing demand** due to population growth and economic development combined with unsustainable consumption and production methods increase the strain on the natural resources base and notably water.
- **Urbanization** further constrains water, energy, and food security and it leads to ecosystem degradation as in the case of not well-managed urban development. However, urbanization can also contribute to new and innovative food systems solutions. The growth of urban population is estimated to add 2.5 billion to the world's urban population by 2050, with almost 90% of this growth happening in Africa and Asia.
- The degradation of water quality contributes to the shortage. **Water pollution** has consequences that reduces the available water resources for different sectors.
- Climate change brings additional challenges to the Water-Energy-Food nexus because it impacts on resource availability, related economic activities and the overarching ecosystems component. Simultaneously, unsustainable consumption and production of food and energy further reinforce such negative impacts from climate.

- Valuing water is difficult and contentious owing to water's physical, political, and economic
  characteristics, but it is necessary as ignoring the value of water is the main cause of water
  waste and misuse
- Exploring water's diverse values usually exposes the need for hard choices, including potential tradeoffs between efficiency and equity. **Measurement and valuation must be embedded in decision making processes** to ensure more systematic, explicit, and inclusive trade-offs.

## Overview of opportunities for progress and transformative solutions

- Improving water use efficiency and sustainable water use management as well as eliminating wasteful uses of water are solutions to dwindling water supplies in many parts of the world and throughout different sectors.
- This can and should be looked at **in every sector of the economy**, such as investment, sustainable land use and water use management, in improved and innovative irrigation technologies, improvements in industrial processes and investment in infrastructure and technologies that can reduce pre-consumer food losses.
- Efficiency improvements need to be accompanied by sustainable and adequate water management and distribution including water-use limitations, demand caps or redirection of water allocations in highly water-stressed regions.
- Addressing and counteracting pollution, measuring and monitoring water quality is essential as polluted water is unsafe to use and further worsens the water supply problem.
- Valuing water can change the way we perceive water, generate new insights and open new doors to innovative solutions to better manage it. In short: properly valued and sustainably managed water is a key component for sustainable development.
- While the **valuation of water can take many forms**, ranging from willingness to pay for clean drinking water and ecosystem services, to participatory processes that capture water's diverse cultural benefit, consolidating the different approaches and methods to water valuation is extremely challenging.
- The key role of valuing water lies in the process it offers to engage stakeholders across
  different perspectives and interests of water use. Water valuation can play a key role in
  making explicit the trade-offs intrinsic to decision-making and priority-setting; especially,
  when it concerns societal needs.

#### Recommendations

- In order to accelerate the rate of implementation of IWRM, countries should be encouraged to develop a **National Water Roadmap towards the 2030 Agenda** through actions and investments in SDG 6 which also contribute to the implementation of all other SDGs.
- Encourage the development of a sustainable Water-Energy-Food nexus in urban contexts through intertwining goals and action plans of the respective city planning departments. This can imply: establishing rainwater harvesting systems for buildings, preventing and reusing food waste, reusing energy (e.g. from sewage), establishing new forms of sustainable urban agriculture like vertical farms, etc.
- Encourage the use of Nature-Based-Solutions as an important tool to enhance resilience, and support sustainable development, including in urban settings by restoring and protecting forests, rivers, lakes, including wetlands.

• The Valuing Water initiative aimed at implementing the UN Valuing Water Principles (VWP) defined by the High Level Panel on Water should be further supported.

**Swiss voluntary commitment:** In line with the recommendations of the Declaration from the 2<sup>nd</sup> Dushanbe Water Action Decade conference and the recent Rome Water Dialogue, **Switzerland is considering the development of a national water roadmap** to develop concrete plans to achieve SDG 6 and all other SDGs through water actions by 2030. The objective is to have the different concerned ministries and stakeholder groups collaborate and seek synergies to achieve co-benefits.

## **Guiding Questions**

- How can we improve the way we value water?
- How do we set a fair price on water?
- How can we ensure that the impacts on food security and nutrition due to increased competition for land and water resources can be mitigated?

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# **Interactive Dialogue 3**

Water for Climate, Resilience and Environment: Source to Sea, Biodiversity, Climate, Resilience and DRR (SDGs 6.5, 6.6, 7, 11.5, 13, 14, 15)

#### Introduction

- Water plays a **pivotal role** in how the world mitigates and adapts to the effects of climate change.
- Many of the **impacts of climate change** or global warming manifest themselves through phenomena linked to water; nine out of ten disasters triggered by natural hazards during the last decade were **water-related**.
- Climate change generates **additional risks to water-related infrastructure**, requiring an everincreasing need for adaptation measures. COP 27 included for the first time water on the official agenda.
- Climate change **mitigation action may impact on water**. For example, the switch from fossil to electric has a huge impact on water resources and water pollution (mining sector). Moreover, the introduction of solar panels for pumping are leading to a faster overuse of groundwater.
- **Biodiversity underpins sustainable development**. Healthy ecosystems strengthen the delivery of water supplies, water quality, and protect against water-related disasters.

#### Overview of the challenge, current status and interlinkages

- Climate change affects the availability, quantity and quality of water. Some of the prominent climate change impacts are, growing deserts, and an increase in the magnitude of floods and droughts. As various studies project significant changes to regionally and globally averaged precipitation and air temperature, these changes will likely also have impacts on groundwater recharge.
- Conversely, **increasing water vapor** caused by global warming amplifies the warming caused by other greenhouse gases.
- Over half of the world's major aquifers are being rapidly drained because rates of **groundwater** withdrawals far surpass rates of replenishment.
- Some of the most rapid changes are occurring in the northern high latitudes where warming is happening at up to four times the global average rate and **melting glaciers**, **permafrost and snowpack** as a consequence.
- The sea level rise through glaciers melt will cause **saltwater intrusion in coastal groundwater** bodies.
- Waterborne diseases like typhoid and choler, including toxic algal blooms, are influenced by climate change patterns, and subsequent risks related to these diseases are increasing.
- Storm, snowmelt, drought and elevated air temperature have a significant **impact on drinking** water quality. For instance, heavy rainfall can increase the turbidity of water resources. Similarly, an imbalance in chemical water quality and enhanced algae development have been observed due to a rise in temperature.

• Vulnerable or marginalized groups — including women, indigenous peoples, minority groups, refugees, persons with disabilities, older persons, and people living in poverty — are disproportionately affected by water-related disasters.

## Overview of opportunities for progress and transformative solutions

- Water is at the heart of climate adaptation policies; efforts to reduce greenhouse gas
  emissions also depend on access to reliable water resources, as all mitigation actions are
  relying on water to succeed.
- Water-related investments make considerable contributions to mitigation and adaptation efforts, thereby helping to strengthening climate resilience.
- Water and climate related databases are increasingly integrated and need to inform decision shaping processes and contribute to the more efficient use of resources.
- Following the example of the IPCC and IPBES, water would benefit from the establishment of an **intergovernmental science-policy platform** to address interdependent water challenges and call attention to pressing global water challenges.
- **Nature-based solutions** (NbS) have recently gained momentum in international policy discussions due to their potential to foster synergies between ecosystem health and human wellbeing, while also offering economic benefits.

## Recommendations

- In order to accelerate the rate of implementation of IWRM, countries should be encouraged to develop a **National Water Roadmap towards the 2030 Agenda**, through actions and investments in SDG 6, which also contribute to the implementation of all other SDGs.
- Encourage the development of a sustainable Water-Energy-Food nexus in urban contexts through intertwining goals and action plans of the respective city planning departments. This can imply: establishing rainwater harvesting systems for buildings, preventing and reusing reusing food waste, reusing energy, establishing new forms of urban agriculture like vertical farms, etc.
- The **Valuing Water initiative** aimed at implementing the UN Valuing Water Principles (VWP) defined by the High Level Panel on Water should be further supported.

**Swiss voluntary commitment:** Switzerland will continue to support the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (**Water Convention**) to support countries in developing transboundary adaptation strategies and implementation of priority adaptation measures though guidance, projects on the ground and exchange of experience.

# **Guiding Questions**

- How can water help tackle climate change?
- How can we strengthen convergence between intergovernmental processes for climate change, DRR, the environment and water?
- How can we provide early warning systems for all?