



Connecting the SDGs through resilient water management

Freshwater is essential to inclusive, equitable and sustainable development and is embedded in all the sustainable goals – not only Goal 6. Water resources, and the wide range of services they provide, underpin poverty reduction, economic growth and environmental resilience. From food and energy security through decent work, cities and production, to human and environmental health – water improves social wellbeing and inclusive growth affecting the lives and livelihoods of billions.

Water is a master variable for life on earth and if we fail to consider water management within our broader development plans and actions, we will fail to reach our targets.

This risk is underscored by the annual World Economic Forum Global Risks Report, which for the past five years has included water crises in their list of top global risks, and on closer examination nine of the top ten risks are actually closely linked to water. At the same time, resilient water management tools and approaches not only improve water security, but can also provide important mutual benefits across a range of sectors and economies, improving the overall resilience of our communities and ecosystems.

Reducing inequality, providing decent work and education opportunities, and promoting peace and justice for all requires integrated approaches that protect vital environmental functions that allow for human flourishing. Our current development patterns of overexploitation, pollution, modification, and degradation of water is a threat to many ecosystem services on which we depend. Ongoing changes to the hydrological cycle mean that conditions, fundamental to our lives and livelihoods and to the technical and cultural fabric of our societies, is changing. Increasing frequency and intensity of extreme water events emphasize the need to adapt to climate change through resilient infrastructure, planning and governance.

Furthermore, many regions that will be most severely affected by water scarcity related climate change impacts are also, in parallel, impacted by political tensions, armed violence, and internal water mismanagement, necessitating urgent efforts to build trust and strengthen transboundary water cooperation at the intra and inter-state levels. These are daunting challenges indeed, but they also present a unique opportunity for communities to cooperate, learn, and adapt together.

The recommendations below highlight how resilient water governance, management tools and approaches can contribute to reaching the SDGs 4, 8, 10, 13, and 16 – under review during the 2019 High-Level Political Forum.

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

There are many water-related barriers to education, including how women and children are often forced to spend hours collecting water and the lack of sanitation services at school. Furthermore, extreme water events such as floods and drought keep children out of classrooms.

- Addressing local water challenges is a key element to improving opportunities for all children to learn and thrive (4.1).



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- The importance of water, sanitation and hygiene (WASH) in schools has been recognized globally by its inclusion in the SDGs (targets 4.a, 6.1, 6.2) as key components of a 'safe, non-violent, inclusive and effective learning environment' and part of 'universal' WASH access.
- Enabling access to safe water close to home or in homes will liberate girls and women from this task and enable them to pursue an education, contributing to their empowerment.

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Sustainable economic growth is not possible without the sustainable use of natural resources. Global freshwater resources are finite and poor water governance has detrimental impacts on economic productivity and the availability of decent work.

- Three out of four jobs worldwide are water-dependent. From its collection, through various uses, to its ultimate return to the natural environment, water is a key factor in the development of job opportunities directly related to its management (supply, infrastructure, wastewater treatment, etc.) and in water-dependent economic sectors including agriculture, fishing, energy, industry and health (8.1, 8.2, 8.9).
- Good access to drinking water and sanitation promotes an educated and healthy workforce, allowing sustained economic growth. Investing in water and sanitation pays for itself four times over, according to the World Health Organisation.
- The inclusion of menstrual hygiene management can help women stay in work and ensure gender equality in the workplace.

SDG 10: Reduce inequality within and among countries

It is now universally accepted that water is an essential natural resource upon which nearly all social and economic activities

and ecosystem functions depend. Sustainable development and human rights perspectives both call for reductions in inequities and tackling disparities in access to WASH services as access to clean water and sanitation is a universal human right.

- Today, two thirds of the global population are estimated to live under conditions where water is scarce for at least one month of the year. Climate change is expected to increase that exposure, especially for disadvantaged groups such as rural households engaged in agricultural production in low income countries (10.1).
- Equitable access to water for agricultural production, even if only for supplemental watering of crops, can make the difference between farming as a mere means of survival and farming as a reliable source of livelihoods.
- Communities subject to multiple stresses from climate-driven water hazards and political instability may experience growing conflicts, with vulnerable groups finding themselves pushed further into poverty and some forced to migrate (10.7).
- Inequalities related to WASH are reinforced and are formed by structural social, political, economic and cultural inequalities that permeate each society, but take on different expressions over time, scale and location. As a consequence, women's control and access to and use of a range of resources (e.g. land, income, social networks) and services (e.g. health, education) affect and are affected by inequalities in WASH access, management and use.
- Indigenous peoples and ethnic minorities suffer disproportionately from economic, social and political marginalization and human rights violations, including poor access to water and sanitation services. As custodians of many of the world's most fragile and important ecosystems, their knowledge and participation are essential to ensuring respect for their rights and to achieving equitable and sustainable water management.

SDG 13: Take urgent action to combat climate change and its impacts

People and nature alike experience climate change primarily through impacts to the water cycle. Changes to the frequency, timing and magnitude of hydrologic events as a result of increasing temperatures are becoming the new normal. The world is at risk of experiencing a continuous rise in extreme weather events, which could destroy any developments low-income countries have made over that last decades. In 2017 alone nearly 100 million people were directly affected by natural disasters, 78 per cent of which were the result of floods, storms or drought.

- While water is often the instrument of disaster, it is also a key to resilience in the face of climate change and essential to sustainable development, peace, security, and economic wellbeing (13.1).
- According to climate change projections, 3.9 billion people, 40 per cent of the global population, will soon reside in basins experiencing severe water stress, including nearly all of Central and South Asia, the Middle East, North Africa and much of China.
- Climate change fundamentally alters the ways in which we manage water. We can no longer use past models to predict future outcomes with the same level of confidence. The uncertainties we face around future water means that in order to achieve positive sustainable development outcomes, we must implement robust and flexible poverty reduction and economic growth strategies that take this uncertainty into account (13.1).
- Accounting for water use in our climate mitigation and adaptation activities is essential. While water is not mentioned in the Paris Agreement, it is necessary for nearly all mitigation and adaptation strategies – from carbon storage in terrestrial ecosystems, to emerging clean energy technologies, to adapting to new extreme weather events – water is an essential and often overlooked component. Our strategies, policies and solutions must, at a minimum, ensure that they do not exacerbate existing water stress, particularly for poor and marginalized communities, and ideally help to alleviate those stresses (13.2).
- This can be accomplished at the national level through the implementation of the Nationally Determined Contributions, NDCs. Water is presented as the number one priority for most of the NDCs whilst a majority of other priority areas and identified hazards are water related or water dependent. Since many of the SDGs and their relevant targets are also addressed by these NDC priorities, transforming water related commitments into national adaptation/action plans gives the opportunity for countries and cities to address the needs in an integrated, efficient and sustainable manner.

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Water is a resource shared by all and water cooperation can be an important factor in strengthening political stability and peace. At the international level, established water cooperation systems in shared river basins can be a critical feature of international cooperation and of the pursuit for solutions to transboundary problems.

- The likelihood and intensity of water conflicts is linked to the rate of physical or institutional change in the water system, as well as the strength of the cooperative institutions linking countries sharing the same water basin. Hence, very rapid changes that cannot be managed by the existing institutional capacity are at the root of most water conflicts. Global warming, causing rapid physical changes, can be a factor increasing the risk for conflict, while having systems in place for transboundary cooperation can reduce the risk.
- Good water governance can serve as a model for improving governance in general. For example, the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) can serve as a model for promoting peace, inclusivity, transparency and cooperation between neighboring states (16.6, 16.7, 16.8, 16A).
- Building effective, equitable and accountable institutions requires the input of all relevant stakeholders throughout the decision-making and implementation process. Effective and sustainable approaches to water management include stakeholders from the onset, asking them to define the challenges and needs as well as determine the acceptable range of outcomes in order to identify the best solutions. Inclusive and equitable decision-making also requires taking into account women's and youth's perspectives on water and development issues. Promoting peaceful and inclusive societies through inclusive governance increases political buy-in and data and information sharing while creating opportunities to resolve challenges before they become crisis (16.7, 16.8).



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Conclusion

The 2030 Agenda is a complex and intertwined framework with a diverse set of goals and targets. However, when looking for solutions, individual goals cannot be tackled in an isolated manner. The Agenda's achievement can be enhanced when taking into consideration other goals, hence avoiding trade-offs.

One trait that is common to most of the SDGs' goals and targets, is their dependence upon sustainable water resources.

Sustainable water resources form the basis of a resilient, thriving society. We will not deliver on the 2030 Agenda without considering and enhancing the role that water can play in achieving the SDGs.

Water is the blue thread that can connect and lend coherence to the 2030 Agenda and serve as a link also to other global processes such as the Paris Agreement. We can make actionable

and measurable strides in reducing poverty, inequality, hunger, aquatic and terrestrial environmental degradation, economic disparity and injustice by:

- ensuring equitable access to clean, reliable water resources for both humans and nature;
- improving the effectiveness, fairness and transparency of water governance from the local to transboundary level;
- climate-proofing our water management tools and approaches;
- recognizing water's value when it comes to social, environmental and economic prosperity; and
- taking a human-rights based approach to water and ensuring that women, youth, indigenous populations and vulnerable groups are empowered to take action and become right holders as well as duty bearers.

About this publication

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