

The Global Water Initiative

December 2017

The Global Water Initiative supports the implementation of UN Sustainable Development Goal 6 and related targets by leveraging its global network and platform to develop bold new forms of multistakeholder collaboration and augment existing partnerships.

Context

According to the World Economic Forum [Global Risks Report 2018](#), water ranks among the top five risks of highest potential impact over the next 10 years, a trend that has continued for seven consecutive years. The 2018 report is no exception, with water ranking fourth in terms of the highest potential impact over the next 10 years. The scale and interconnectedness of the top global risks are increasingly tied to water – from climate-related impacts and extreme weather events, to pollution, food crises, conflict, involuntary migration and cybersecurity. Decision-makers across sectors must navigate trade-offs and develop creative new approaches in order to achieve universal access to water and sanitation, strengthen resilience to future water stresses, ensure water withdrawals do not exceed sustainable levels, and manage water across sovereign boundaries.

A key challenge affecting water resources is a rapidly expanding population. With a growth rate of 80 million people per year, the global population is predicted to reach 9.1 billion by 2050, of which two-thirds will live in cities. This means that agriculture, already accounting for 70% of water use, will need to produce 60% more food overall and 100% more in developing countries, to meet this growing demand. The [UN World Water Development Report 2017](#) indicates that the water demand for energy production is expected to increase by 20% through 2035 and that used for manufacturing is predicted to increase by 400% from 2000 to 2050 – mostly in emerging economies – far exceeding water use of any other sector. These constraints are exacerbated by increasingly hot temperatures and more frequent and intense climate-related events such as floods and droughts, which threaten water security in many countries.

With the world projected to experience a 40% global water deficit by 2030 under the business-as-usual climate scenario, according to the 2030 Water Resources Group, addressing water-related risks is an increasing priority for government, the private sector and civil society.

Water and the Fourth Industrial Revolution

Against this backdrop of increased stress on a finite global water supply, the world is also arguably in the midst of a systems-wide revolution in production, manufacturing and consumption. New technologies are accelerating progress in a range of areas, such as digital platforms, low-cost sensors, Big Data, biological advancements, new materials, the Internet of Things, artificial intelligence and machine learning, all of which are features of the Fourth Industrial Revolution. There is no doubt that the Fourth Industrial Revolution is disrupting business models and policy prescriptions at a rapid rate. Conversely, it may also offer a wealth of opportunities to better manage water and other global environmental commons.

Given the interconnected nature of these challenges and opportunities, the World Economic Forum is well positioned to bring together leaders to address the global water crisis. By leveraging its unique platform and multistakeholder network, the Forum's Global Water Initiative elevates and connects the perspectives and advancements of different stakeholder groups to foster swift and scalable responses to water issues. In doing so, it is able to complement and amplify the work of new and existing initiatives to achieve UN Sustainable Development Goal (SDG) 6 and its related targets, including:

Water security rewired

In collaboration with the World Bank, Swiss Agency for the Development Cooperation and other key stakeholders, the Global Water Initiative has mobilized a new "community of action" to explore the disruptive potential the Fourth Industrial Revolution can bring about for the water sector.

Drawing upon a diverse group of technology innovators, entrepreneurs, donors, academics, business leaders, governments and civil society organizations, this group seeks to identify technology-enabled solutions for water security, while developing the policy protocols needed to bring them to scale.

One area of current exploration is the role of data and technology in improving transparency and decision-making tied to water management. How, for example, could applying concepts such as blockchain affect the way water is valued and traded across borders and stakeholders? Similarly, how might AI, remote sensing, satellite and other earth observation technologies be harnessed to better detect and quantify water-related risks across a given basin for insurers, companies and/or vulnerable communities? A related area of focus is how to accelerate progress on the global sanitation crisis. How are mobile technology and Internet of Things-enabled solutions poised to improve decentralized water, sanitation and hygiene service delivery and maintenance in rapidly urbanizing environments?

In response to the growing interest among Members and Partners, the Forum is also supporting a coordinated effort – that includes industry, service providers and government – to explore opportunities to innovate and scale circular economy approaches for wastewater recovery and treatment.

Stemming from a series of dialogues and workshops in 2017, the Global Water Initiative has engaged this new community of action to develop an initial set of project concepts to support decision-makers at all levels to improve their management of water and sanitation. In collaboration with the World Bank Water Global Practice, the group will continue to shape and advance these solutions via regional workshops with in-country partners and pilot projects in 2018.

This new chapter complements the continued support the Global Water Initiative provides to the 2030 Water Resources Group.

2030 Water Resources Group

The Global Water Initiative is a partner of the 2030 Water Resources Group (2030 WRG), a unique multistakeholder collaboration that drives water resource reform in developing countries. Incubated at the Forum from 2010 to 2012 and successfully transitioned to the International Finance Corporation in 2012, the 2030 WRG's third phase (2018-2021) will be housed within the World Bank Global Water Practice, forming a key public-private partnership in its portfolio of multi-donor trust funds. The 2030 WRG is currently working in 13 locations and with a network of over 500 partners to close the supply-demand gap in water-stressed geographies.

“Fourth Industrial Revolution advances such as remote sensing, artificial intelligence and the Internet of Things present a game-changing opportunity for water because they help address the greatest existing impediment to integrated water management: actionable information.”

– Glen Low, Co-Founder,
Earth Genome, USA

The Global Water Initiative supports interested Forum Members and Partners to identify strategic opportunities for engaging in 2030 WRG activities and participating in national water resources management debates, projects and policy development.

For an overview of 2030 WRG countries and activities, visit: www.2030wrg.org

For more information on how to engage in World Economic Forum work on water issues, contact Callie Stinson at callie.stinson@weforum.org.

