

From crisis to opportunity: Using climate change to ramp up investment in Africa's water sector

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Climate change is accelerating Africa's water and sanitation crisis. A massive scaling up of investment is needed to offset the crisis, combat climate change and build more resilient economies. This urgent investment challenge is a significant opportunity for governments, the private sector and multilateral development organisations to make a lasting contribution to Africa's future.



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Water is central to Africa's development. It is needed to grow crops, generate electricity, manufacture goods, conserve the environment and protect human health. Yet, across the continent the quantity, quality and availability of this precious resource is highly variable – and often inadequate – contributing to a high disease burden and undermining economic potential.

Environmental degradation, climate change, population growth and urbanisation are putting greater pressure on water security. Today, one in three African citizens is affected by water scarcity. By 2025, close to 230 million Africans are projected to face water scarcity, and up to 460 million will be living in water-stressed areas.

Climate change expresses itself primarily through water – or the lack thereof. Higher temperatures and heat waves affect infrastructure and biodiversity, changing rainfall patterns affect agriculture and reduce food security, and increases in the intensity and frequency of prolonged droughts and severe floods affect livelihoods.

These changes are amplified by structural and gender inequalities, social disparities and exclusion, conflict, fragility, the destruction of ecosystems and the degradation of land. As a result, the continent's existing water challenges are exacerbated and hard-won development gains are erased. Impacts are wide-ranging and include risks to food security and livelihoods, and an increase in poverty, migration and the risk of health crises.

This is already reflected in the unprecedented multi-season drought in the Horn of Africa, which, compounded by years of conflict, has contributed to a large and rapid deterioration in food security, putting millions of people at risk.

In Africa, climate change risks are compounded by low levels of access to water and sanitation: more than 400 million Africans lack basic water supply services and 700 million have no access to safely managed sanitation. Improving water security is a precondition for strengthening communities' ability to withstand the effects of climate change while promoting their socio-economic development and prosperity.

Crisis and opportunity

Preparing the water sector to reduce its production of greenhouse gases (mitigation) and adjust to the effects of climate change (adaptation) and build community and infrastructure resilience, is critical to Africa's future food, energy and water security as well as sustaining peace and ecosystems. There are several promising avenues for investment.

First, it is crucial to consider climate change impacts in all plans and decisions in the water sector. This can be done through projects that use data from climate models to understand the current climate hazards and vulnerabilities and further predict impacts on water resources; collect and disseminate key water, weather and climate basin level information to improve early warning and contingency planning; build regional partnerships and collaborate with institutions to improve how water resources that are shared across borders are managed; and develop long-term plans for managing and developing water resources.

Second are investments in climate adaptation. Africa experienced many extreme weather events in 2022, from continued drought in the Horn of Africa affecting more than 36 million people to destructive floods across West and Central Africa displacing over 3 million people. Potential projects need to bolster the continent's resilience to these impacts. They could include activities that promote innovation in harvesting, conservation, storage, recycling, re-use and sustainable use of water resources.

In areas at high risk of drought, enhancing water storage options can ensure better access to water for domestic use, agriculture and industry. Flood protection measures can be improved in coastal regions, river basins and urban areas where sanitation and water routing and supply are adversely affected by climate change.

There is also an increasing need to develop and pilot insurance products that will protect the goods and productive assets of the most vulnerable communities against water-related disasters. Women play a key role in water management and are disproportionately affected by climate change, thus ensuring gender equality and managing structural social inequalities is crucial.

Third are investments in mitigation in the context of water, which can be achieved through projects that reduce greenhouse gas emissions using nature-based solutions or technology-driven approaches. For example, only 11% of Africa's

hydropower potential is utilised. Potential projects include those that preserve or restore wetlands; establish or re-establish forests; build hydropower capacity; and reduce emissions from water systems that provide drinking water, treat waste and stormwater, and pump water for agriculture and other uses. In addition, water systems on the continent have the potential to use abundant renewable solar energy.

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