Water&Africa

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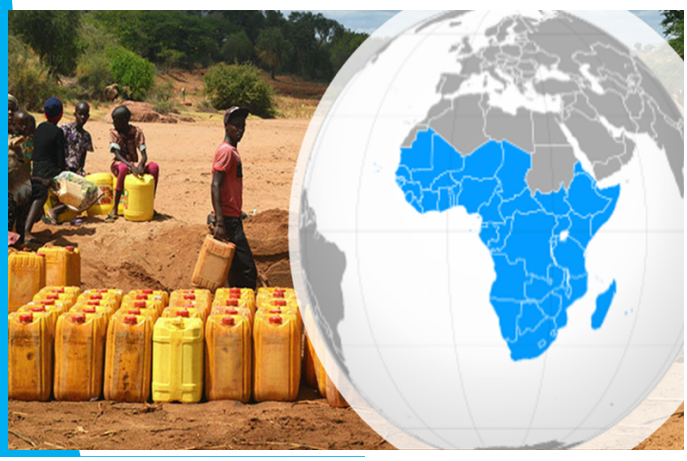
Water for peace and prosperity in Africa

African Desk
HPA Center Türkiye

Rising Water Insecurity Risks in Sub-Saharan Africa

(*By Dursun Yıldız*)



The United Nations defines water security as: The capacity of a population to safeguard sustainable access to adequate quantities of and acceptable quality water for sustaining livelihoods, human well-being, and socio-economic development, for ensuring protection against water-borne pollution and water-related disasters, and for preserving ecosystems in a climate of peace and political stability. But Sub-Saharan Africa is falling short of these objectives.

Pressures on Africa's water systems are escalating. Water demands are mounting more rapidly in Sub-Saharan Africa than anywhere else on Earth. The World Resources Institute calculates that total regional water use will soar 163 percent by mid-century, driven by surging agricultural and domestic requirements. Water claims from industry and manufacturing are expected to skyrocket, nearly quadrupling from 2010 to 2050. Regional population is projected to climb 79 percent by 2054, adding another 981 million people. Much of this growth will occur in cities, often in sprawling informal settlements and intermediary towns lacking public services and infrastructure capacities. The population living in

urban areas with perennial water shortages could spike sixfold to reach 162 million in 2050. Such trajectories raise the spectre of increasing competition among different users for limited resources, forcing thorny trade-offs between prioritizing household demands and furnishing the water needed by agriculture and industry (Michel David 2025).

As water demands balloon, strains on water supplies are also worsening. The frequency of droughts has tripled across Sub-Saharan Africa since the 1970s, and flooding has surged more than tenfold. Depending upon the models and scenarios analyzed, differing projections foresee that the number of people around the region suffering water stress could spike up to 921 million or fall by 429 million by 2050.

Sub-Saharan Africa ranks as the world's most water-insecure region

From the Sahel to South Africa, some 869 million people, more than the total populations of the United States and European Union combined, lack safely managed drinking water. Since 2015, the share of inhabitants using safely managed drinking water services has barely crept upwards from 27 to just 31 percent, even as Sub-Saharan Africa's population climbed by almost 20 percent during the same period (Michel David 2025)..

Less than 10 percent of Sub-Saharan Africa's wastewater is treated before being discharged directly back into the environment. Worsening water-related disasters impact some 15 million people a year, on average, annually, causing billions of dollars in damage.

All told, Sub-Saharan Africa ranks as the world's most water-insecure region. In a global assessment of 186 countries evaluating 10 components of water security—water availability, water quality, and water safety—the United Nations found every country in the region rated water insecure, and 12 states scored critically insecure (Michel David 2025)..

The stakes could not be higher. The nations of Sub-Saharan Africa, all low-income or lower-middle-income countries, could see their GDP tumble a crushing 10–15 percent by mid-century if they fail to resolve growing water challenges.

How to build resilience capacity

Realizing water security in this landscape of shifting pressures and unpredictable disruptions will place a premium on flexible and resilient approaches that can succeed across a range of potential futures and advance common goals among multiple stakeholders. Resilience for water security can be defined as the ability of people and systems to anticipate, adapt to, and recover from shocks and stresses in a manner that reduces vulnerability, protects livelihoods, accelerates and sustains recovery, and supports economic and social development. Resilience entails building capacities within institutions, systems, and societies to address evolving risks and their underlying causes. To deal with risks, three resilience capacities are vital: (1) absorptive capacities—to prevent, mitigate, and withstand stresses; (2) adaptive capacities to create diverse options for adjusting and rebounding; and (3) enabling capacities, creating decision-making structures and processes to identify and address root causes of risks and enact integrated practical solutions. To these ends, promoting sustainable infrastructure, actionable information, and effective institutions are the interlocking building blocks of resilient water systems.

Some recommendations

Water systems in Sub-Saharan Africa are increasingly in crisis. Growing populations and expanding economies are relentlessly driving rising demands. Seven in ten people living south of the Sahara lack access to safe drinking water. Many service providers lose more water to broken pipes and faulty metering than they deliver to consumers. The water that does arrive is often dangerously polluted. More frequent and ferocious floods and droughts increasingly threaten water infrastructure, but inadequate resources and ineffective management often undermine efforts to expand supply networks and improve service. Lack of sustainable infrastructure, reliable water data, as well as effective governance structures, makes sustainable water management very difficult in Sub-Saharan Africa.

Sustainable infrastructure constitutes the backbone of resilient water systems. Pumping stations, storage facilities, treatment plants, distribution and drainage networks provide absorptive and adaptive capacities to meet the stresses of growing demands and mitigate and rebound from the impacts of extreme events. Yet across Sub-Saharan Africa, inadequate resources and deficient management often undermine effective infrastructure development. Much infrastructure development struggles under a costly and wasteful cycle of build, neglect, and rebuild. Up to 40 percent of new rural water points in some states fail within two years. Similarly, an alarming proportion of the region's water supplies disappears into leaking pipes, defective metering, and theft. Known as "non-revenue water" (NRW), these losses represent water supplies produced by utilities or service providers but lost or unaccounted for in the distribution system. For a dozen Sub-Saharan African countries reporting data for 2023, NRW averaged 30–60 percent, with some providers recording losses above 90 percent (Michel David 2025).

Managing complex water security risks depends on accurate, timely, and consistent information to guide policymaking, implementation, and evaluation. Much of Sub-Saharan Africa, though, suffers from a comparative paucity of detailed and accessible water data. African policymakers recognize a lack of adequate data as a significant obstacle to achieving their water security goals. Improving and ensuring the collection and application of such information streams will demand increased capacity building in national water and weather services, strengthened collaboration among data providers and end-users, and defined responsibilities and policies for data access and availability

Sub-Saharan Africa exhibits a diversity of governance structures, but most water systems are managed by a mix of government institutions overseeing public utilities, traditional authorities, or community-based management, and private sector actors. Complex institutional structures of multiple organizations, processes, functions, and objectives complicate coherent water management. Building water security through a resilience lens can be encouraged through establishing regular participatory platforms and processes for gathering water stakeholders across institutions and levels of governance. (Michel David 2025).

Deliberate mechanisms such as water user associations, umbrella authorities, and water commissions can promote policy coherence, share knowledge, align priorities, and coordinate information and resource flows to help maximize development effectiveness.

Decision-makers in Sub-Saharan Africa must reconcile a host of overlapping socioeconomic, environmental, and policy challenges to fulfill their countries' future water needs. Promoting water security for the region will require adopting integrated approaches recognizing interconnections and interdependencies between stakeholders, water uses and resources, and levels of governance to build the resilient practices, infrastructure, and institutions needed to chart sustainable pathways forward.

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The Africa Water Vision for 2025: Equitable and Sustainable Use of Water for Socioeconomic Development

(*Part IV*)

7. The Key Challenges

While the key and compounding issues pose numerous challenges for the water sector in Africa, it is possible to identify 10 key challenges. These are:

1. Ensuring that all have sustainable access to safe and adequate water supply and sanitation services to meet basic needs;
2. Ensuring that water does not become the limiting factor in food and energy security;
3. Ensuring that water for sustaining the environment and life-supporting ecosystems is adequate in quantity and quality;
4. Reforming water-resources institutions to establish good governance and an enabling environment for sustainable management of national and trans-boundary water basins and for securing regional cooperation on water-quantity and water-quality issues;
5. Securing and retaining skilled and motivated water professionals;
6. Developing effective systems and capacity for research and development in water and for the collection, assessment, and dissemination of data and information on water resources;
7. Developing effective and reliable strategies for coping with climate variability and change, growing water scarcity, and the disappearance of water bodies;
8. Reversing growing man-made water-quantity and quality problems, such as over-exploitation of renewable and non-renewable water resources, and the pollution and degradation of watersheds and ecosystems;
9. Achieving sustainable financing for investments in water supply, sanitation, irrigation, hydropower and other uses, and for the development, protection and restoration of national and trans-boundary water resources;
10. Mobilizing political will, creating awareness and securing commitment among all with regard to water issues, including appropriate gender and youth involvement.

The Water Vision for Africa is designed to address these challenges.

8. *The Africa Water Vision for 2025*

From this review of the socio-economic crisis in Africa, the salient features of water resources in the region, and the key challenges facing the development of such resources, it is apparent that business as usual will be woefully inadequate in addressing the water resources problems in Africa. A radical change in approach is required if water is not to become a constraint to, but rather an instrument for, a socio-economic turnaround and development in Africa. Such an approach calls for a new water vision for the continent, buttressed by a flexible framework for action that can respond to progress towards the Vision and to relevant developments within and outside the water sector.

The shared Water Vision for Africa has been defined with this in view. It is a vision of:

> **“***an Africa where there is an equitable and sustainable use and management of water resources for poverty alleviation, socioeconomic development, regional cooperation, and the environment.*”

It is a Vision of an Africa where:

1. There is sustainable access to a safe and adequate water supply and sanitation to meet the basic needs of all;
2. Water inputs towards food and energy security are readily available;
3. Water for sustaining ecosystems and biodiversity is adequate in quantity and quality;
4. Water-resources institutions have been reformed to create an enabling environment for effective and integrated management of water in national and transboundary water basins, including management at the lowest appropriate level;
5. Water basins serve as a basis for regional cooperation and development, and are treated as natural assets for all within such basins;
6. There is an adequate number of motivated and highly skilled water professionals;
7. There is an effective and financially sustainable system for data collection, assessment and dissemination for national and transboundary water basins;
8. There are effective and sustainable strategies for addressing natural and man-made problems affecting water resources, including climate variability and change;
9. Water is financed and priced to promote equity, efficiency, and sustainability;
10. There is political will, public awareness and commitment among all for sustainable management of water resources, including the mainstreaming of gender issues and youth concerns and the use of participatory approaches.

9. Critical Factors for Achieving The Vision

Many factors will influence attainment of the vision. Among these are population and demographic trends, lifestyles and consumption patterns, structure and level of economic development, technology development and choice, governance, policies and institutions. The structuring of these factors is what will determine the attainability of the vision. For example, achieving the vision will call for slower population growth, sustainable socio-economic development, a new way of thinking about water and a new form of regional co-operation. It will call for a framework for action that is underpinned by partnership and solidarity between countries that share common water basins. In addition, it will call for co-operation between sub-regional groups on the continent. It will require fundamental changes in policies, strategies and legal frameworks, as well as changes in institutional arrangements and management practices. Above all, it will require adherence to the following critical success factors:

- Openness and transparency in decision-making processes;
- Ability to generate and receive knowledge and information;
- Cooperation and teamwork by all countries in the region to achieve common and mutually beneficial objectives;
- Readiness to take tough decisions on the future direction and course of action consistent with the aspirations in the shared Water Vision;
- Proper appreciation at all times of “where we are”, “where we want to be”, and “how to get there”.

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Note: The following part/s will be presented in our next issue/s. Stay tuned!

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