Africa’s freshwater resources are at the center of the region’s livelihoods, ecosystems & economies

Livelihoods. Freshwater is an essential ingredient in providing food security to the continent either through agricultural activities or freshwater fisheries. Similarly, freshwater is a central component of sanitation and thus has a direct link to the ability of leading a healthy life.

Ecosystems. Freshwater directly or indirectly supports all of Africa’s species while providing essential ecosystem services in the form of weather regulation, pollution handling or transportation of nutrients.

Economies. Africa’s economies rely on sectors that are highly water-dependent, such as agriculture, tourism or energy.

At the same time, Africa’s freshwater resources are at significant risk

Several developments put freshwater resources under pressure: (1) Sharp increase in freshwater demand due to high population growth and increasing agriculture/industrial activities, (2) Shift in demand concentrations through rapid urbanization and (3) Insufficient demand management because of inadequate governance capacities. As a result, five key threats for Africa’s freshwater resources have surfaced impacting freshwater quality and quantity – all compounded by climate change:

Over-abstraction of water has caused a significant decline in freshwater quantity. Lake Chad, covering Nigeria, Niger, Chad and Cameroon for example has shrunk by 90% in the past 60 years.

Large-scale land transformations for agricultural purposes have had detrimental effects on catchment integrity causing declines in water quantity due to irrigation and water quality due to the unsustainable use of fertilizers. Here sub-Saharan Africa has recorded the fastest conversion of forest land to agriculture in the past 20 years worldwide.

Inappropriate infrastructure developments without considerations for ecosystem impact have significantly decreased water quantity and quality for ecosystems and communities downstream.

Overfishing has caused a sharp decline of certain fish populations impacting water quality and livelihoods. Examples include Lake Victoria, where overfishing has led to an up to 85% decline in catch.

Invasive non-native species including flora and fauna that were introduced for example in the Berg River in South Africa, have had detrimental effects on freshwater quality and quantity.
Livelihoods. By 2050 Africa’s population is predicted to grow by half a billion with an increasing share to suffer from water stress with implications for people’s health, food security, poverty, equality and conflict.

Ecosystems. As water stress increases, the trend of drastically declining freshwater biodiversity will intensify. Water stress in combination with climate change will lead to dysfunctional ecosystem services leading to droughts in some areas and floods in others.

Economies. Water scarcity will put sectors at the heart of African economies at risk; the agricultural sector will not have sufficient water for production and other sectors particularly in heavily hydropower-dependent East and Southern Africa, will be faced with energy shortages.

Today...
- ... already 25% of Africa’s population suffers from water stress
- ... 64% of African farmers rely on water that is highly variable
- ... 40 billion working hours are lost to the collection of drinking water per year - mainly born by women

In the future...
- ... water scarcity holds the potential for significant conflict - 90% of rivers and lakes in Africa are transboundary
- ... 40% of croplands are expected to become unsustainable under expected level of water stress
- ... by 2030, 70% of hydropower capacity in eastern and southern Africa will face increasing risk of concurrent disruption to power generation

Time for collective and scalable freshwater conservation across Africa: the Blue Heart of Africa initiative

Rather than performing interventions, which are isolated, with a narrow geographic focus and small in scale, the Blue Heart of Africa (BHoa) initiative seeks to unify freshwater conservation activities across the continent and across stakeholders by providing an overarching framework and promoting a landscape approach that addresses Africa’s key freshwater challenges.

More specifically, the initiative aims to support African countries to meet national, regional and global commitments towards water security through four pillars along the water value chain (see figure 1):

By 2030, the freshwater resources of the Blue Heart of Africa regions are effectively managed and conserved to sustain locally and globally important ecosystems and provide a foundation for sustainable development and secure livelihoods.

**Figure 1: The Blue Heart of Africa – Theory of Change**
(1) **Promote Nature-based Solutions (NbS).** Africa must ensure that it adapts to climate change with Nature-based Solutions and further seek to invest in NbS to reduce the risk of water-related disasters. Our focus will be on driving innovation and investment in Nature-based Solutions across Africa, that will build greater resilience to climate change by reducing the impact of extreme floods, enhancing water security and soaking up storm damage.

(2) **Safeguard sources and flows.** It is critical that environmental flows are implemented in priority river basins to secure habitats, biodiversity and livelihoods. Catchment management needs to be implemented in critical water source areas to stop catchment degradation and deliver resilient water yields downstream. To ensure sustainability under this pillar, reliable data needs to be generated to inform decision making, governance bodies need to be strengthened to make and enforce respective laws and other stakeholders such as the private sector and communities need to be included through collective action and citizen-science to ensure accountability and long-term viability. Activities include formalizing water allocation plans, implementing environmental flows or creating new regulations regarding the protection of source water areas.

(3) **Promote a One Health agenda in priority conservation landscapes.** The coronavirus pandemic has highlighted that efforts by just one sector cannot prevent or eliminate the problem. Africa must be better prepared to handle future outbreaks. Working with the right partners and adopting a One Health approach in designing and implementing future programs will be crucial. We must ensure that policies, legislation and research in our landscapes reach across multiple sectors to communicate and work together, to achieve better public health and conservation outcomes.

(4) **Ensure sustainable freshwater fisheries.** Freshwater fisheries play a crucial role for livelihoods and biodiversity in Africa. They substantially contribute towards food security and act as a ‘safety net’ in times of food crises (such as caused by COVID). While contributing roughly the same as marine fisheries to Africa’s GDP, freshwater fisheries employ twice as many people – one third of which are women. The 3,200 freshwater fish species, a high proportion of which are endemic and integral to effective freshwater ecosystem function, make up a great part of Africa’s biodiversity. As overfishing and other factors bring 22% of freshwater fish species towards the brink of extinction, sustainable freshwater fisheries can significantly contribute towards bending the curve on freshwater biodiversity loss for the continent. Activities include invasive alien species mgmt., sustainable aquaculture, capacity building for various stakeholders, data collection or awareness raising.

The theory of change within each of the four pillars is that if we (1) form a capable and inclusive Network of Excellence across different stakeholder groups, (2) Make the Case through reliable, up-to-date and transparent data, (3) transform financial flows through private sector Finance and Stewardship and (4) Influence for impact by manifesting change in policies and legislation, freshwater resources in the BHoA regions will be effectively managed and conserved to sustain globally important ecosystems and provide a foundation for sustainable development and secure livelihoods.
Ensuring effectively managed and conserved freshwater resources in Africa will contribute significantly to important social, environmental and economic outcomes as well as climate mitigation and adaptation efforts in the coming years:

**Improved Health, Food Security, Income Security and Equality for the Most Vulnerable**

**Increased Resilience of Biodiversity, Ecosystems and Ecosystem Services**

**Improved Economic Growth with Less Expected Risk**

**IMPACT OF THE INITIATIVE**

The initiative will contribute to a diverse set of policy objectives:

- Unparalleled experience in freshwater conservation, policy, planning, and data that allows us to scale success
- A pioneer in freshwater finance and stewardship
- Long-term country presence and an unmatched global network
- Constant drive for innovation to unleash disruptive change
- Design of holistic and integrated approaches for lasting impact, including sharing lessons via multi-country initiatives

**A Trusted Brand & Powerful Convener**

- An influential partner and central convener of public and private sector, civil society, and academia
- A leading source on water risk
- Uniquely placed to catalyze sustainable water investments
- Driving freshwater thought leadership and knowledge exchange
- Ability to mobilize millions of citizens and empower communities worldwide

**WWF & Freshwater in Africa**

**Offices**

- DRC
- Kenya
- Madagascar
- Morocco
- Tunisia
- Mozambique
- South Africa
- Tanzania
- Uganda
- Zambia

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