

WWF & AB INBEV PARTNERSHIP REPORT

PHASE 1-3 OVERVIEW 2024



Working together
to improve water
quality and
quantity in high
stress watersheds
in Africa



Cover image

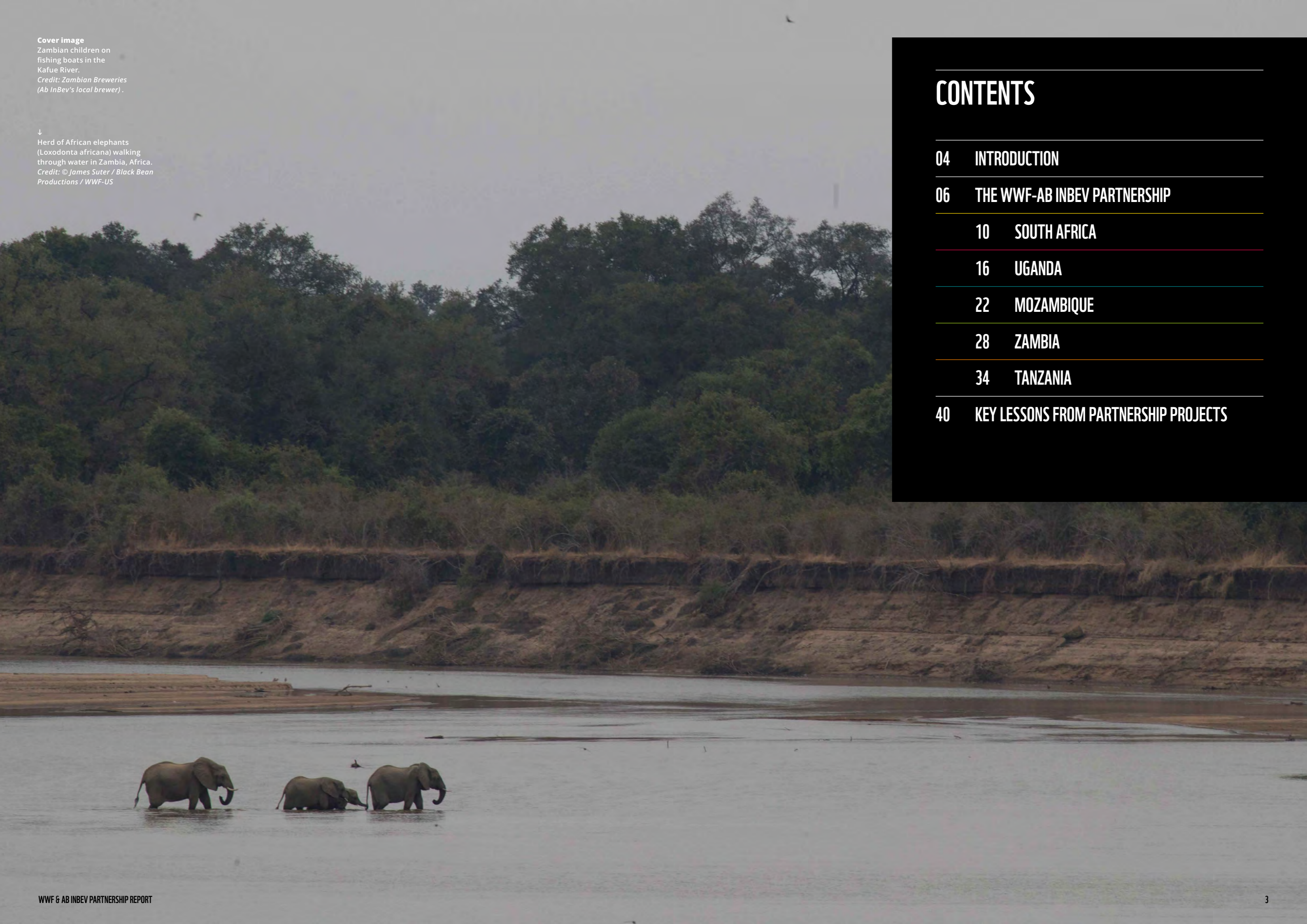
Zambian children on fishing boats in the Kafue River.

Credit: *Zambian Breweries (Ab InBev's local brewer)*.

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Herd of African elephants (*Loxodonta africana*) walking through water in Zambia, Africa.

Credit: © James Suter / Black Bean Productions / WWF-US



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Rivers, lakes and wetlands are among the most important and biodiverse habitats on our planet. Remarkably, while they cover less than 1% of the Earth's landmass, freshwater environments support nearly a quarter of all vertebrate species, including more than half of the world's known fish species.

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A great egret in search
of fish- Zambia.
Credit: James Suter/Black
Bean Productions WWF US

But these vital ecosystems are in trouble. Globally, freshwater species populations are facing unprecedented pressures, falling by a shocking 83% between 1970 and 2018 – a rate of decline faster than for terrestrial or marine species. People too are suffering, with some 4 billion experiencing water scarcity for at least one month each year. And global demand for freshwater continues to rise, while the availability of clean and accessible water keeps falling.

The degradation in freshwater environments is being driven by factors including over-abstraction, flow modification, pollution, habitat destruction, invasive species and overexploitation. But the impacts of these pressures extend beyond environmental and social concerns, into the realm of business. Water is a fundamental resource for industries across the globe, providing critical input for agriculture, energy, manufacturing and many other sectors. Scarce and degraded water resources pose substantial risks to businesses, including supply chain disruptions, increased operational costs, regulatory challenges, and reputational risk. Companies are increasingly recognizing the need to integrate sustainable water management practices into their operations, and implement water stewardship approaches.

This strategic shift towards responsible water stewardship is not only a matter of environmental responsibility, but also an essential aspect of ensuring long-term business resilience in an increasingly water-stressed world. That's why WWF and AB InBev are working together to meet the issue head on.



83%

GLOBALLY, FRESHWATER SPECIES POPULATIONS ARE FACING UNPRECEDENTED PRESSURES, FALLING BY A SHOCKING 83% BETWEEN 1970 AND 2018 - A RATE OF DECLINE FASTER THAN FOR TERRESTRIAL OR MARINE SPECIES.

THE WWF-AB INBEV PARTNERSHIP



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 AB InBev's local brewer South African Breweries (SAB) funded restoration team felling and stacking invasive alien plants which were decreasing water availability in the Outeniqua Water Source Area, South Africa
 Credit: Rozanne Steyn



AB InBev has been at the forefront of water stewardship over the past decade, assessing water risks to their operations, setting targets and engaging beyond their factory fence: our new partnership is driving even greater collective action that will benefit economies and ecosystems.

STUART ORR | WWF Lead Freshwater Practice



The partnership between WWF and AB InBev focuses on water stewardship, recognizing the critical importance of water conservation in ensuring a sustainable future.

TIMELINE



The partnership with WWF has a long standing history, which first started with South African Breweries (SAB), dating back to 2009 when WWF and SABMiller pioneered the practice of 'water footprinting' – measuring the amount of water used in making beer. Together we explored ways to mitigate water risks facing businesses, communities and ecosystems, both through the supply chain and through collective action. Incorporating water stewardship into SABMiller's corporate strategy not only contributes to ecological preservation, but drives communities' economic resilience and well-being.

When SABMiller joined AB InBev in 2018 the partnership entered a new stage, specifically targeting water security in five high-risk landscapes. The collaboration then expanded into other AB InBev markets in Africa, with the aim to enhance watershed protection and restoration efforts.

Our two organizations leverage our respective expertise, resources and influence to find innovative strategies for conserving watersheds and improving water quality. We collaborate on activities including water risk assessments, sustainable agricultural practices and community engagement, working together to identify and address risks, develop sustainable solutions, and foster partnerships to achieve our shared goals.

We recognize that scientific research, data analysis and stakeholder engagement are fundamental in driving effective water management strategies. By integrating the best available knowledge and involving local communities, governments and other stakeholders, we are laying solid foundations to create lasting and impactful change.

Over the last five years, in the first two phases of our partnership, WWF and AB InBev have developed the groundwork for focused ecosystem restoration projects in a number of priority watersheds that support AB InBev's 2025 water sustainability goal to have measurable improvement in water availability and quality across 100% of communities in highstress areas in which AB InBev operates. Phase 3 – beginning now – aims to consolidate our progress to date and deliver measurable impacts with clear KPIs for both water quality and water quantity, as well as to broaden our work with communities, multistakeholder platforms and public authorities.

Ultimately, we want this collaboration to serve as a model for other industries and organizations to follow in their pursuit of responsible water management and conservation. This report describes how our partnership operates, what we've achieved so far, and the future goals we're targeting.

PARTNERSHIP OBJECTIVES



Strengthen AB InBev watershed investment efforts and secure freshwater sources for business operations and local communities.



Leverage wider investment in watersheds globally through thought leadership and demonstrably effective nature-based solutions.



Show how public-private partnerships can contribute to Sustainable Development Goal 6, 'Clean water and sanitation for all'.



Contribute to WWF's wider conservation objectives, protecting biodiversity and fighting climate change.

→
AB InBev & WWF staff working together on the BeeOdiversity survey.
Credit: Caroline Gelderblom
WWF South Africa.



Our ultimate goal is to ensure water availability and quality for both our breweries and our communities, because when our communities thrive our business thrives. But we know we cannot do this work alone, which is why our partnership with WWF is invaluable to us. We're proud to work with an organization that shares our belief that measurable impact at scale is the next frontier in water stewardship.

ANDRE FOURIE | GLOBAL VP, SUSTAINABILITY

SOUTH AFRICA



The farmers and farm owners are actually the people who get the greatest benefit out of the whole project. They had a lot of water shortages recently, but in the last two or three years a lot of them have had an overflow of water after the rivers have been cleared of aliens.

WILTONS PHELA | Local Project Team Contractor

KEY ISSUES

Water is a really pressing issue in South Africa: the country has half the average global rainfall and is projected to have a 17% water deficit by 2030. A key part of the national response has been to attempt to maintain healthy catchments areas which support 50% of the population, 64% of the South African economy, supplies 70% of irrigated agriculture, and 90% of city water supplies. WWF and AB InBev have been working together to secure two of these areas: one is in the City of Cape Town, where the company has a brewery; and the other is in the Outeniqua Mountains, located just outside George, which is the only location in Africa suitable for growing hops, a particularly water-intensive crop threatened by a rapid spread of invasive alien vegetation in the area.

SAB Miller was a founder member of the Table Mountain Water Source Partnership, which promotes sustainable use of groundwater in the City of Cape Town through active monitoring, education and management. This partnership was initiated during the 'Day Zero Drought' when groundwater became an important 'fallback' resource but has continued past this crisis period to support long term collaborative management of this shared resource.

In the Outeniqua Strategic Water Source Area, the main issue being addressed by WWF and AB InBev, along with local stakeholders, is the rapid spread of invasive alien plants which use far more water than indigenous species. When the programme was initiated in the Waboomskraal and Herolds catchments it was projected that without active intervention alien plants would reduce run-off by 45%, and would use up to 60% of low flows during dry seasons and droughts. Invasive trees also considerably increase fire risk for local communities. This is particularly concerning considering the climate crisis has increased the probability of Wildfires in the area by 300%.

MAP



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17%

WATER DEFICIT BY 2030.



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Mimetes cucullatus, the common pagoda is one of the many fynbos plants which have returned to the restored slopes of the mountains of the Outeniqua Water Source Area as a result of the WWF SAB clearing efforts.
Credit: Caroline Gelderblom

PARTNERSHIP PROGRESS: PHASES 1 AND 2

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Our partnership with SAB demonstrates the value of sustained investment and engagement- maintaining and steadily expanding improvements in water yield to over 10 billion litres of water which benefits both local farmers and water stressed downstream communities.

Caroline Gelderblom | WWF South Africa

10,000ML

WATER RELEASED FROM INVASIVE SPECIES CLEARANCE



WWF and AB InBev’s collaboration in South Africa stretches back more than a decade, and this long-term engagement has resulted in significant improvements in two Strategic Water Source Areas. The Table Mountain Water Source Partnership supports collaborative management of precious groundwater resources in Cape Town, while invasive plants are being kept in check in the Outeniqua Mountains with promising results. Specific achievements include:

- ✓ Alignment to government’s goal of the conservation and effective management of water and biodiversity.
- ✓ The removal of invasive trees from over 1,600 hectares and the restoration of the remarkably diverse indigenous vegetation, which benefits endemic species and ecosystems, and maintains ecological functioning.
- ✓ A significant reduction in the risk of intense wildfires, protecting local communities and ecosystems.
- ✓ Up to 10 000ML of water has been released by clearing invasive alien plants and restoring the indigenous vegetation.
- ✓ An analysis of pollen collected by bees provided valuable insights into regional use of pesticides which is being used to improve production practices.

←
Rozanne Steyn, implementation manager of the alien clearing programme, stands in front of the hops farms and mountain catchments which have benefited from improved management.
Credit: Caroline Gelderblom

PARTNERSHIP PLANS: PHASE 3

The goal now is to maintain and build on the progress achieved to date through the partnership. We will continue to:

- Drive collaboration and closer relationships with local farming communities to target long-term sustainability.
- Continue investment to maintain and expand current gains.
- Implement monitoring programmes to quantify the impact of restoration activities, and use results to inform adaptive management efforts.
- Train specialist teams to tackle high-altitude alien species invasions – these can impact the most sensitive portions of the catchments, and are particularly challenging to deal with effectively.

→ Endemic Plants
Flourishing after
restoration.
Credit: Rozzane Steyn,
Local project manager

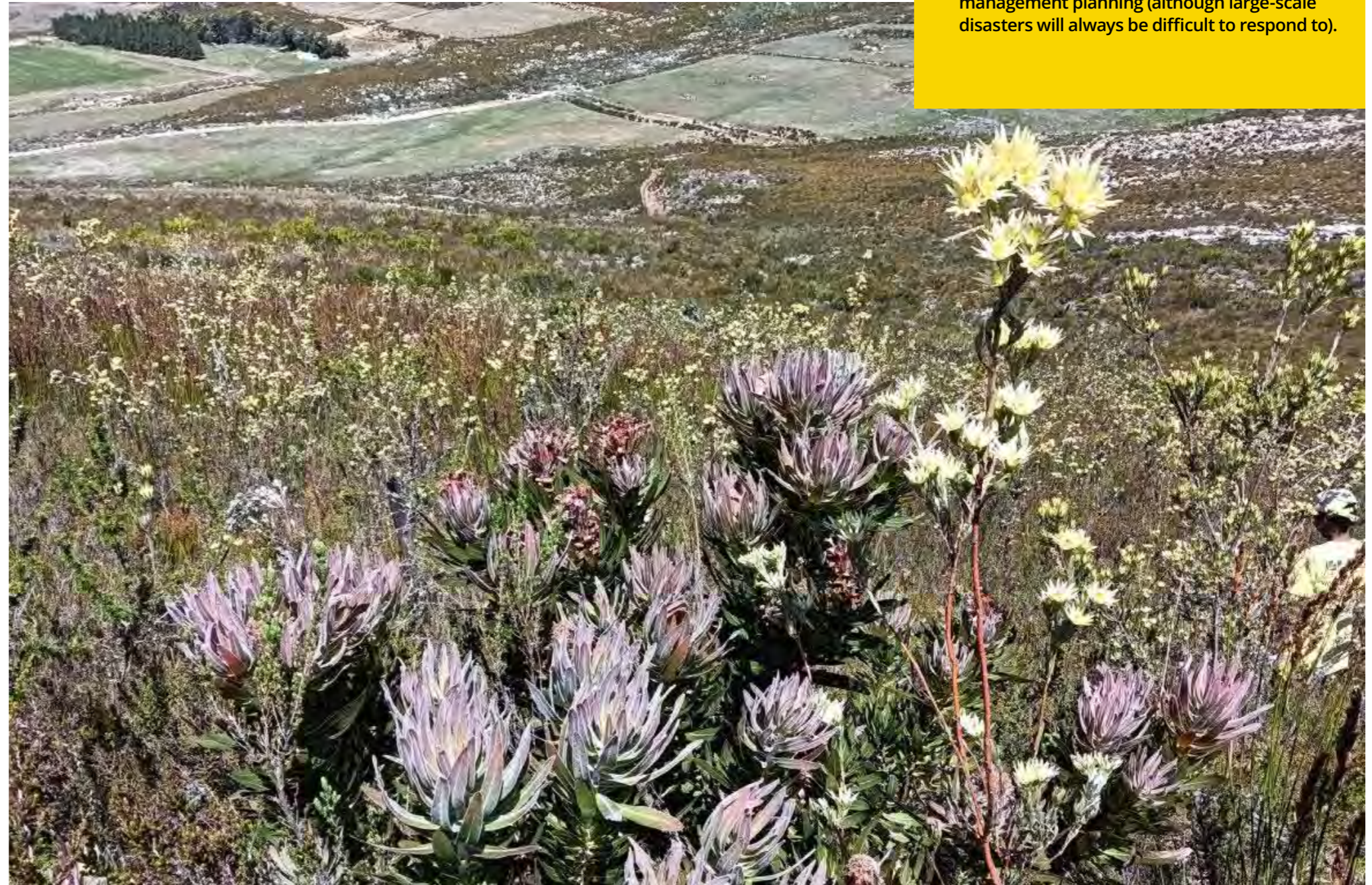


Over the years I have worked with several contracting teams, and some have grown into extraordinary small businesses... I can see the difference in the landscape areas from where we started to where we are today. Some of the areas, after several follow-ups, have grown back to their natural state, and bird and animal life has also improved.

WILTONS PHELA | Local Project Team Contractor

LESSONS LEARNED

- Building the strong partnerships that are needed to implement nature-based solutions takes time, the right people, collaborative governance structures, and sustained investment to maintain gains.
- It's essential to have effective local management in place to supervise work – this is the best way to gain buy-in from local land users and owners.
- Local leaders within the farming community have a particularly important role to play in spreading the uptake of good practices.
- It's important to allow for the occurrence of natural events such as wildfires in management planning (although large-scale disasters will always be difficult to respond to).



UGANDA



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Eav using
rain water harvest tank.
Credit: WWF Uganda

KEY ISSUES

Uganda's River Rwizi provides water and related environmental services to some 2.5 million people in the southwest of the country. It's the main source of water for Mbarara city, a major business hub with a population of more than 1 million supporting industries including beverage companies, milk plants, construction, municipal solid waste, health facilities, agro-industry and farmlands. AB InBev's local partner Nile Breweries Ltd has a brewery in Mbarara with an annual capacity of over 650,000 hectolitres. It relies on water from the River Rwizi for production.

The river catchment covers an area of about 8,200km² – but despite its importance for regional social, economic and ecosystem functions it has been heavily degraded, resulting in water shortages during the dry season and flash floods during the wet seasons. The water in the river is affected by heavy siltation, sedimentation and direct pollution, and is mostly turbid when it reaches the taps of Mbarara city – if it reaches them at all.

Degraded ecosystems and a lack of vegetation in the upper and middle catchment have resulted in a lack of surface water body storage, except for a few small remaining wetlands. This poses a severe risk to the booming industrial and agricultural hub in west Uganda. The river has also recently been colonized by the invasive water hyacinth (*Eichornia crassipes*), which now covers 80% of its surface. This affects both ecosystem productivity and populations of freshwater species, a situation made worse by pollution stemming from poor methods of solid waste disposal (plastic bottles, polythene bags, medical waste). Communities and economies in the region are being impacted by the reduced ability of the fragile river and its catchment to absorb and recover from these risks.

MAP



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▼
Project Location Mid catchment of river Rwizi covering sub counties - Ndejja, Rugando and Nyakayojo (including Mbarara city) as well as Shuku, Kagango and Bubaare

270

HECTARES HAVE BEEN
MAPPED AND DEMARCATED



I am one of the beneficiaries of the water tanks that were constructed. My neighbours also come and fetch drinking water from here... We now have enough time to tend to our gardens and our children are no longer late for school – because previously they would first go to the river to get water in the morning.

EVA SANYU | Rutooma village, Rwampara district

PARTNERSHIP PROGRESS: PHASES 1 AND 2

The project began with the creation of a catchment management plan for the River Rwizi. WWF-Uganda and AB InBev have been working with a range of stakeholders to support its implementation.



18.3

HECTARES OF RIVER
CURRENTLY UNDER
RESTORATION

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The interventions introduced for river restoration have been successful upstream where there are hills, mid-stream where there are people's gardens and downstream where there is the river and its buffer zone. Vegetation along the River Rwizi banks is thriving again!

BARNABAS MUBANGIZI | Projects Officer, Ministry of Water and Environment

INTERVENTIONS TO DATE INCLUDE:

- ✓ 270 hectares have been mapped and demarcated with 18.3ha already restored along a 27km length of the Rwizi in Mbarara city.
- ✓ Soil and water conservation actions, including native tree planting and water quality and quantity monitoring.
- ✓ Scaling-up workshops and field activity exercises with 114 participants from all 12 catchment districts, plus stakeholders including politicians, technical staff, private sector organisations, NGOs, religious and community leaders, academic institutions and the media.
- ✓ Creation of community livelihood opportunities, with 1076 households undertaking land management improvements.
- ✓ 9 rain harvesting systems installed for the provision of clean drinking water, supporting 95 households.

←
Gilbert in Bamboo
Credit: WWF Uganda.

PARTNERSHIP PLANS: PHASE 3

The goal of Phase 3 is to consolidate and scale up the work done in Phases 1 and 2, focusing on inclusive community-based adaptation and ecosystem based adaptation approaches to improve water quality and quantity in the River Rwizi catchment:

- Build the capacity of targeted communities to develop and implement localized micro-catchment management plans.
- Support community groups fighting plastic pollution.
- Partner with relevant institutions to coordinate and leverage support to sustain implementation of catchment management plans.
- Build and put in place a monitoring protocol for water quality and quantity verification
- Continue to demarcate and restore buffer areas while taking measures to enhance the resilience of freshwater ecosystems.
- Document and disseminate best practices for sustainable management of the river catchment.
- By 2025, see improvements in restoration, water flow, quality, increases in Aquatic biodiversity and increased community beneficiaries.

→ Eva's husband in his garden with high yields
Credit: WWF Uganda.

LESSONS LEARNED

- Using a multidisciplinary project task force – comprising staff from WWF and Nile Breweries, local leaders, the Department for Water Resource Management and the National Environment Authority – has enhanced confidence and trust among all involved, providing a complementary skill base and a strong foundation for efficient and effective implementation. This is a better approach than outsourcing project implementation to consultants.
- Continuous day-to-day expertise and support from the WWF network – especially from the Dutch Fund for Climate and Development, WWF-UK, WWF-Denmark, the Regional Office for Africa, the Blue Heart of Africa, and Bankable Water Solutions – has strengthened our practical impact and increased our fundraising capacity.



WWF and the MWE engaged the church about stopping agricultural practices on [catchment] land to aid the restoration process. After sensitization and mobilization of the communities about the importance of restoring the river, the communities agreed to abandon these activities and move away from the catchment – but in order to ensure that they don't get tempted to encroach on the catchment area again, WWF introduced to them alternative sources of livelihood, which they are undertaking.

REVEREND PEACE TUSINGWIRE AYE BARI | Kakigaani parish, Rwampara district

MOZAMBIQUE

MAP



640m³

INCREASE IN AVAILABILITY PER DAY WITH REMOVAL OF INVASIVE SPECIES

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▼ **Project Location**
Incomati and Umbeluzi river basins in greater Maputo region.

Maputo



This partnership is a very important contribution for water stewardship in the Greater Maputo Region. Business, politicians, water governance structures, local communities and civil society have been called to an open dialogue to understand water risks and to contribute with different efforts to work collectively to meet the Sustainable Development Goal #6.

BERNABÉ ALEXANDRE FONDO | WWF MOZAMBIQUE

↓
Local small-scale farmer watering her crop. Benefiting from invasive species clearance on the Umbeluzi River.
Credit: WWF Mozambique.

KEY ISSUES

Today, Mozambique is one of the 10 countries in the world most susceptible to climate change. Cyclones, floods, droughts, warmer temperatures, rising sea levels and irregular rains – exacerbated by high levels of poverty and livelihood pressures including access to water, reduced fishing, degradation of natural resources, unequal human rights, and diseases in people, plants and animals – are all having a severe impact on crops, livestock, biodiversity and human health. Mozambique’s location on the east coast of Africa, downstream of most of the important river basins relied on by upstream countries – makes water resource management of critical importance for the environment, socioeconomic development, and human well-being.

The situation is particularly acute in the Greater Maputo Region, where a fast-growing population is driving increasing levels of production and consumption. The socioeconomic context has been fundamentally transformed by the expansion of residential areas, commercial agriculture (largely sugar and banana plantations), subsistence farming, tourism, artisanal fishing and industry. Key industrial sectors include beverages, hydropower, minerals and material processing. While offering economic benefits, the emerging development corridors also demand substantial water withdrawals – and demand is exceeding availability. In addition to threatening the viability of water-dependent business, this is also harming human well-being and biodiversity.

In recent years, the Greater Maputo Region has faced a very severe drought that has hit communities, businesses and ecosystems alike, and the Water Quality Index has been decreasing both upstream and downstream. Bold strategic thinking on sustainability and water stewardship is essential to prevent further adverse impacts.



PARTNERSHIP PROGRESS: PHASES 1 AND 2

Since 2019 WWF and AB InBev have been working together in the Greater Maputo Region. The aim has been to understand the water context, identify risks and opportunities for management, and bring together stakeholders to take collective action to reduce water loss and increase water quality.

INTERVENTIONS TO DATE INCLUDE:

- ✓ Aquatic and ground-based invasive species have been cleared from 10km of the Umbeluzi River. Water quality parameters (colour, smell, organic matter, etc.) have improved as a result, and water losses due to evapotranspiration have been reduced. The partnership has collected over 1,428m³ of waste from the river, mostly invasive plants.
- ✓ Water availability has also increased, with invasive species no longer taking up 640m³ each day.
- ✓ Extremely positive feedback has been received from the government, private sector and local community stakeholders.
- ✓ We are proud of the community involvement in the project, with 40 community members trained in invasive species removal.

→
River Umebuzi, clearing
invasive species.
Credit: WWF Mozambique



The clearing invasive species work has shown that it is possible to reduce water losses in the Region, contributing to more water availability for human consumption, for industry, agriculture and for biodiversity. As a reminder, the work in Maputo has contributed to save 640m³/day. In the context of increased water demand due to population growth, climate change related events and economic development, this is a valuable contribution.

BERNABÉ ALEXANDRE FONDO | WWF MOZAMBIQUE

PARTNERSHIP PLANS: PHASE 3

Building on the work done since 2019, Phase 3 will focus on convening coalitions and implementing ground activities to scale up positive water stewardship outcomes across the Greater Maputo Region. Habitat management and river health are in the frame, with a specific aim to improve the regional status of tilapia, a freshwater fish of major importance to artisanal and subsistence fishers. Activities will include the following:

- Identify and power-map all regional freshwater stakeholders.
- Engage stakeholders in planning discussions and encourage collective action.
- Increase analysis of the water quality situation, including research on pollution sources, invasive species, quality trends, and potential nature-based solutions.
- Put in place habitat management measures and restoration actions for priority species, and improve key indicators for river health and freshwater biodiversity.
- Continue groundwork on corrective actions to reduce the impact of invasive species and pollution on the Umbeluzi river, clearing 150ha of river of invasive species and restoring 6ha of riverbank with native planting.
- Enhance community incomes by offering work clearing invasive species and creating new opportunities for small-scale fishers.
- Take collective action to improve water quality parameters – this will also reduce the operational costs of the Umbeluzi’s Water Treatment Plant.
- Improve water quality and availability across the Greater Maputo Region: by June 2025, WWF and AB InBev aim for their joint initiative to be saving Over 1,500m³ of water each day.



↓
Umbeluzi invasive species.
Credit: Fondo WWF Mozambique

LESSONS LEARNED

- Awareness-raising has been absolutely critical for the success of the project in Maputo. Without it, many stakeholders would simply not have been conscious of the extent of the risks associated with depleted and dirty water supplies, or the various factors contributing to them – from climate change and economic growth, to unsustainable use and outdated governance arrangements.

ZAMBIA

MAP



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▼ **Project Location**
Kafue, Namwala, Monze, and Mazabuka Districts of the lower Kafue Sub-Basin.

Lusaka

50%

OF ZAMBIA'S HYDROPOWER IS GENERATED IN THE KAFUE FLATS



Citizen science is a good programme as it enables companies like ZESCO to work with the communities on water stewardship.

ENVIRONMENTAL OFFICER | ZESCO LTD

KEY ISSUES

The Kafue Flats is an area on the lower part of the Kafue River, a tributary of the great Zambezi River. The Flats contribute significantly to the health of the Kafue River, which is a source of food, energy and water for 52% of the Zambian population, including the residents of the capital, Lusaka. As one of the fastest-growing cities in the Southern African Development Community, Lusaka requires a consistent and sustainable supply of water resources to support livelihoods and long-term economic growth.

In addition to providing half of Zambia's total hydropower, the Kafue Flats is home to more than 470 species of birds. But the environment is under great pressure, and water is becoming a contentious issue. Man-made and climate-related shocks and stress are creating risks for natural ecosystems and the people who depend on them. Poor regulation, overexploitation and exposure to pollution all threaten the sustainability of the water supply.

Uncontrolled development taking place without adequate land-use planning is putting in doubt the capacity of current and future cities to service the needs of their populations. In addition, vital aquifers face the risk of pollution from pit latrines and septic tanks.



Zambian community fisherman on the Kafue River.
Credit: Zambian Breweries.



PARTNERSHIP PROGRESS: PHASES 1 AND 2

WWF-Zambia and AB InBev have been working together since 2018 to secure improved water quality and quantity in the lower Kafue Sub-Basin. Phase 1 of the Water Stewardship project involved a situation analysis study that assessed socioeconomic and climate change factors in the basin and recommended measures to take to address key water risks. Phase 2 saw work begin on the ground targeting a variety of areas:



100,000

NATIVE TREE SEEDLINGS RAISED BY
PROJECT NURSERIES

“

Citizen science empowers community members to have a say on water resources governance and management, we have seen massive improvement in the quality of water bodies in our communities.

MWIYA KALALUKA | Citizen Scientist

- ✓ A follow-up study on land-use management found that land in the basin is threatened by deforestation from clearance for agriculture, charcoal making, sand-mining and other unsustainable practices; while the disruption of natural drainage increases soil erosion. The study created a business case for improved land-use practices and water resource management among agricultural entities in the Kafue Flats.
- ✓ Improvements in farming practices were piloted using Farmer Managed Natural Regeneration (FMNR) and Assisted Natural Regeneration (ANR) techniques in Mazabuka District. These targeted risks created through water pollution, unknown water abstraction and soil erosion. So far the project has attracted 208 farmers and has resulted in 1463ha of land committed to FMNR.
- ✓ WWF-Zambia and AB InBev worked to include communities and schools in citizen science activities – e.g. monitoring and data collection on river health – in order to raise awareness of the importance of good water governance and upscale impacts on a landscape level.
- ✓ A Landscape Finance Plan has been created with generic classes and financing models to attract sustainable investments in the landscape in the next phase of the project.

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Advancing floodwater
of the Kafue River.
Credit: © Martin Harvey / WWF

PARTNERSHIP PLANS: PHASE 3

The goal of Phase 3, by 2025, is to develop a more resilient and productive landscape in the Kafue, Namwala, Monze and Mazabuka Districts of the lower Kafue Sub-Basin that delivers improved water quantity and quality and that is supported by diversified, sustainable livelihoods and investment. The following activities will contribute to this goal:

- Implement best-practice water and soil conservation techniques to decrease runoff and increase infiltration across 240 hectares of farmland, preventing soil degradation and environmental pollution.
- Upscale the adoption of Farmer Managed Natural Regeneration and sustainable farming techniques to actively restore agricultural land currently contributing to water stress and pollution.
- Establish community-based natural resource management committees in each area, and build capacity in existing committees.
- Build capacity through schools and communities, and drive advocacy to embed pro-environmental behaviour in society, business and government to ensure a legacy of continued stewardship and best practice.
- Conduct forestry inventories and a baseline survey for water quality and quantity, and support water quality monitoring through citizen science.
- Create multiple finance mechanisms – supported by the government and other stakeholders active on the Kafue Flats Joint Action Group platform – to effectively fund water stewardship activity in the Kafue Flats into the future.

↓ Livestock and Zebras (*Equus burchelli*), Mwanachingwala Conservation Area, a significant area for the local people where they take their animals to graze, Kafue Flats, Zambia
Credit: © Martin Harvey / WWF



LESSONS LEARNED

- Relationship-building with partners is key to virtual collaboration – a fact that became particularly clear under the restrictions on movements and meetings during the COVID pandemic.
- The positive response of farmers to Farmer Managed Natural Regeneration schemes can be used as an entry point to introduce other landscape restoration techniques in future that include soil and water conservation.
- Collaboration and cooperation between government agencies is an integral element in achieving synergistic impact – it’s really important to emphasize this from the start of any project.



With this sort of intervention (FMNR/ANR), we are capable of restoring the Magoye river to flow again throughout the year.

DISTRICT COMMISSIONER | Mazabuka

TANZANIA



Water is the number one ingredient in beer making, no water no beer, no water no life, no water no taxes and other issues; let us work together to improve the quality and quantity of water and help community access water.

JOSE MORAN | TBL COUNTRY DIRECTOR



→ River Ruvu at Morogoro bridge.
Credit: John Kassambili
WWF Tanzania

MAP



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1,600m³

FRESHWATER RESOURCES PER CAPITA AND STILL DECLINING

KEY ISSUES

Tanzania has abundant water resources in its lakes, rivers and wetlands, but water infrastructure development is limited impacting access for households and businesses. As a result, Tanzania is a water-stressed country – per capita renewable freshwater resources are below 1,600m³ and still declining.

Progress towards universal provision of safe, affordable water has been slow, especially in Dar es Salaam, the country's largest city. The increasing population and severe land degradation around Dar es Salaam and its satellite towns are contributing to high levels of pollution in the rivers; while uncoordinated sectoral planning has led to water-use conflicts between upstream and downstream users. A range of factors threaten the watershed: unsustainable agriculture and poor land-use practices, unregulated abstraction, livestock incursion, unsustainable fishing, invasive species, sand mining, sedimentation (through loss of original riverbank vegetation), and solid waste pollution blocking river flows.

Weak stakeholder participation in the governance of resources means that rivers which pass through city centres – like the river Msimbazi – are heavily polluted by industrial effluent and illegal sewage systems. This reduces their ability to provide a range of ecosystem services, and even to irrigate vegetable gardens. Compounding the issues, the Wami Ruvu Basin Water Board lacks adequate information on water quality and quantity due to an absence of functioning hydrological and meteorological stations and sampling sites, and monitoring of groundwater is particularly limited.

PARTNERSHIP PROGRESS

Securing safe and sustainable water resources in the Dar es Salaam watershed – which covers 18,000km² and includes the lower Ruvu and coast catchments of the Wami-Ruvu Basin – is vital for regional development. This is the focus of WWF and AB InBev’s joint project, which is bringing nature-based solutions and collaborative action to three key rivers around Dar es Salaam: the Msimbazi, the Kizinga and the Ruvu. Tanzania is the newest project in the partnership. While the latest to start, good progress has been made so far;



+5,000
TREES WERE PLANTED

“ This Project contributes to the Tanzania Vision 2025 and we invited other companies from different areas across the country to learn from TBL and ABI as they assist the Wami/Ruvu Basin to improve water quality and quantity.

MARYPRISCA MAHUNDI | TANZANIA DEPUTY MINISTER OF WATER.

- ✓ WWF and AB InBev subsidiary Tanzania Breweries Ltd (TBL) held a joint Africa Water Stewardship conference in Dar es Salaam to raise awareness of the work of the partnership, and share lessons for scaling up across Africa.
- ✓ Following reconnaissance surveys, key sections of the Ruvu, Kizinga and Msimbazi rivers have been identified for intervention.
- ✓ Sites for monitoring water quality and quantity have been chosen; with samples collected and sent for laboratory analysis.
- ✓ WWF and TBL have held a series of joint events for Earth Hour, where more than 5,000 native water friendly trees were planted. Including Mango, Soursop and Sweet Orange.
- ✓ More than 3 hectares of water-friendly plants (reeds and bamboo) have been planted upstream on the Msimbazi, to stabilize the river bank and restore riparian zones.

← Ab InBev & WWF come together for a Water Stewardship conference in Dar es Salaam
Credit: WWF Tanzania

PARTNERSHIP PLANS:

The project is now focusing on creating a business case for large-scale bankable nature-based solutions – for water quality and quantity, and ecosystem restoration – and engaging stakeholders to leverage funding from private, public and development partnerships. Meanwhile, work on the ground continues in Phase 3, targeting further improvements in the Dar es Salaam watershed. Plans are to:

- Install 800 beacons to demarcate water sources for protection along a 40km stretch of the Wami Ruvu basin.
- Construct one charcoal dam on the Ruvu River to retain flood water in wet periods to supplement local communities in dry periods, as well as support biodiversity.
- Upscale planting of oil palm trees by supporting nurseries along the Ruvu river – a bankable nature-based solution that creates alternative livelihoods as well as protecting water sources and biodiversity.
- Conduct continuous monitoring for water quality and quantity.
- Plant water-friendly trees at 20 selected 0.5km sites to stabilize river banks.
- A variety of Bankable Nature based Solutions for watershed management and restoration projects will be implemented by 2025.
- Drilling of a borehole, construction of a cattle trough and a domestic water point.

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Tanzania Tree planting event
Credit: Japhary Kiwanga/WWF
Tanzania



LESSONS LEARNED

- Working closely with government departments speeds up project implementation, and creates ownership and sustainability.
- The availability of experienced personnel from the Wami Ruvu Basin Water Board along with advanced technological equipment has also speeded up implementation of activities which would otherwise have taken a long time to complete. Moreover, the successful recruitment of project staff has enabled an acceleration of the plan.
- Both public and private sectors have plenty of ideas about bankable nature-based solutions, but require guidance to record these ideas and bring them to fruition – support from WWF and other CSOs is needed, along with evidence of similar successful initiatives.

KEY LESSONS FROM PARTNERSHIP PROJECTS



PLAN AND COMMUNICATE REALISTIC TIMESCALES FOR DELIVERY

The COVID pandemic brought unprecedented delays to project planning and delivery, with significant knock-on effects on the ground. In addition, it's easy to underestimate timelines, and this can cause frustration among all project stakeholders with respect to pace of progress. This is compounded by the fact that progress is not linear: a large amount of groundwork goes into engaging communities and ensuring compliance with our environmental and social safeguarding framework, which means the early stages of a project may see little in the way of tangible delivery against output indicators. Throughout any project, delays in delivery must be identified and communicated as early as possible, with adaptive management put in place where needed.



ENSURE PROJECT DELIVERY METRICS ARE APPROPRIATE FOR LOCAL SCALE AND CONTEXT

Our partnership works across very different river systems, in terms both of scale and hydrological and socio-economic context. As such, the nature of the work undertaken in each country varies widely, from engagement with farmers to land-use improvements and strategies to combat invasive species. This also means that it's challenging to find common aggregated indicators across the programme as a whole which fairly reflect activities on the ground – the ability to effect change on a hectare of land in one location may not require anything like the same effort or resource as it would in a different socio-economic context or land ownership structure. Instead, the collective ambition of the project can be better reflected as a narrative – i.e. the holistic improvement of a watershed, as opposed to shared indicators of specific metrics.



IN-PERSON MEETINGS ARE THE MOST EFFECTIVE FORM OF COMMUNICATION

While the wide geographic range of our project partners means that most communication will naturally take place online, there's no substitute for direct personal contact. This was made very clear by our workshop in Dar es Salaam in October 2022 – just a few days of working together enabled all involved to build stronger relationships and develop a deeper understanding of the challenges facing the project. It's strongly recommended to organize an in-person workshop for all key stakeholders early on in any project process: all parties will gain a better understanding of the programme and work together more effectively with a sense of shared ownership.



OUTPUTS VERSUS IMPACT: QUANTIFYING SUCCESS

Given the scale of the issue we're confronting and the raft of external factors that make each location unique – such as drought, population and flood events – measuring overall impact on water resources within the timescale of the partnership is a challenge, and may not reflect the range of positive developments stemming from each project. Instead we've focused largely on measuring direct project outputs, such as the area of land restored, the number of farmers engaged with, the number of livelihoods created, etc. We can use increased water availability as a measure of overall basin health, but it's important to view this in the broader context of the various output measures.

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Bee in South Africa. Pictured from BeeOdiversity project.
Credit: Angus Burns - WWF South Africa

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Some of the members of the Table Mountain Water Source Partnership which has made significant inroads with supporting local awareness and education, policy work, restoration of recharge areas and the development of groundwater dashboards to inform both public and government action. Kalpana Maraj - University of Cape Town, Tamsin Faragher City of Cape Town, Fanus Fourie - chair Department of Water Affairs and Sanitation, Phil Mclean Western Cape Government, Alyssa Jooste SAB, Shafick Adams - Water Resource Commission),
Credit: Alyssa Jooste Ab InBev



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Native tree seedlings in Zambian nursery .
Credit: WWF Zambia



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