

Water security for people's livelihoods in Africa: enabling health, food and sustainable resources

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Editorial

Dear colleagues,

It is with great pleasure that we present the **tenth edition** of the RésEAU Brief series, featuring SDC's **Green Nexus** approach¹ jointly implemented by the three thematic networks [CDE](#), [A&FS](#), and [RésEAU](#). This special Green Nexus edition focuses on water in Africa, a region where access to water for people's health and food security and the risk-informed management of water resources, remain among the most pressing challenges.

Despite progress, Africa is not on track to achieve the SDG targets for water and sanitation by 2030. In 2020, only 39% of the population had access to safely managed drinking water, 27% to sanitation, and 37% to basic hygiene ([UNICEF & WHO](#), 2022). **Water insecurity**² affects roughly 1.34 billion people across the continent, notably in the Sahel, the Horn of Africa and parts of West Africa ([UNU-INWEH](#), 2023).

These water security challenges are deeply connected with **food security**, **climate change**, and regional **peace** and stability. Twelve of the world's most drought-prone countries are in Africa with floods further straining

livelihoods and economies ([UNU-INWEH](#), 2023). Competition for water is intensifying, especially in fragile contexts where scarcity adds to existing tensions ([FDFA](#), 2024).

Yet, opportunities for improvement exist, and African communities and governments are **making progress**. They are –together with their partners– innovating to enhance climate resilience, improve (transboundary) water governance, and invest in sustainable infrastructure.

This RésEAU Brief highlights SDC's engagement in strengthening WASH services, pastoralists and livelihoods, agricultural water use, and water resources management at large. It includes examples of how **integrated approaches** to water management can enhance living conditions, reduce risks, and contribute to more sustainable and peaceful development pathways across Africa.

We hope this edition will inspire valuable ideas and wish you a good read. As usual – we very much welcome your feedback and comments!

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Your ideas matter!

We're committed to addressing the topics that matter most to you. If there's a subject you would like to see covered in future briefs or if you have insights to contribute, please reach out to us!

¹ SDC's Green Nexus approach recognizes and manages the interdependent relationships between climate and ecosystems, food systems, and water resources, to deliver sustainable, resilient, and equitable development outcomes while minimizing trade-offs and maximizing co-benefits (SDC, 2026).

² A population is considered water secure when it has the "capacity to safeguard sustainable access to adequate quantities of acceptable quality water for sustaining livelihoods, human well-being, and socioeconomic development, for ensuring protection against waterborne pollution and water related disasters, and for preserving ecosystems in a climate of peace and political stability" ([UNU-INWEH](#), 2023).

1. Introduction to water security priorities in Africa

In 2024, two-thirds of the world's population living in extreme poverty resided in Sub-Saharan Africa, even though the region accounts for only 16 percent of the global population ([World Bank](#), 2024). Across the African continent, pressure on water resources intersects with **demographic growth**, rapid urbanisation and insufficient **service provision** regarding water supply and sanitation.

Despite progress, there are still significant **inequalities** between and within countries, notably between urban and rural populations in **access** to safely managed drinking water, sanitation and hygiene (**WASH**): while 52% of the urban population have access to safely managed drinking water only 37% of the rural population do so ([WHO & UNICEF](#), 2025).

Pastoralists, who depend on rainfed pastures and water sources for watering their stock, are facing simultaneously droughts, land degradation, and competition with farmers over dwindling water points. As most **smallholder farmers** in Africa produce rainfed crops, only 6% of farmland is irrigated. However, irrigated production can give 1.5 to 2 times higher yields and grow higher value crops such as fruits, vegetables or spices and under less risky conditions ([FAO](#), 2025; [You et al.](#), 2010).

Many countries are making progress with developing and revising laws, policies and plans for more Integrated Water Resources Management **IWRM**. Yet often the financial, institutional, and technical capacity to implement them is lacking. As a result, water resources are not being managed sustainably, with overuse and pollution continuing, providing a modest basis for climate resilience ([AMCOW & UNEP-DHI](#), 2025).

Africa's **climate** is warming faster than the global average. Heatwaves, persistent droughts and destructive floods have become more frequent and extreme hydrological variability is projected to amplify. Changes in precipitation patterns further reduce crop yields by shortening growing seasons

and increasing water stress. Multiple African countries will be facing **compounding risks** from reduced food production across crops, livestock and fisheries ([Trisos et al.](#), 2022).

In response, the **African governments** propose water governance reforms and infrastructure investments under regional policy frameworks such as the [Agenda 2063](#), the [Africa Water Vision 2025](#), recently updated in the [Africa Water Vision 2063](#) and policy. These aim to overcome limitations in finance, data and implementation capacity. There is a need for more investment and on-ground support to **rural areas** to strengthen climate resilience, improve productivity and the sustainable use of water resources ([Mutschinskia and Coles](#), 2021).

Switzerland's Africa Strategy 2025-2028 identifies climate change as a major risk multiplier, exacerbating pressures on water resources, reducing agricultural productivity, and ultimately undermining livelihoods and food security across multiple regions of the continent. As **competition** for water, farmland, and pasture intensifies, many already fragile contexts face a heightened risk of new **conflicts** and population displacement ([FDFA](#), 2024). Switzerland has committed 1,548 million CHF (44% of its bilateral cooperation budget) to Sub-Saharan Africa between 2025-2028 ([FDFA](#), 2025).

Through bilateral cooperation, Switzerland supports African countries in adapting to climate change, sustainable natural resources management, with a focus on food security and improved access to water, in West and East Africa. In North Africa, the focus is on environmental issues through urban planning, green funds, and water and waste management ([FDFA](#), 2024). Beyond regional efforts, Switzerland supports solutions such as transboundary water resources management and investment, environmental sustainability in industries, and expanding access to WASH services working with local governments and in humanitarian aid contexts. The next sections provide key insights into these bilateral and regional efforts.

2. Expanding access to WASH services for improved health

With a clear focus on improving public health, Switzerland has supported a range of initiatives over time to expand access to safely managed drinking water, sanitation, and hygiene (WASH) services—particularly in rural areas—both for long-term development and during humanitarian crises.

Access to decentralised WASH services in rural Mozambique

Niassa Province in northern **Mozambique** has some of the country's lowest water and sanitation coverage levels. Only 48% of the rural population has access to safe drinking water, 12% uses improved latrines, and just 6% of households have a designated handwashing facility with water and soap or ash. Half of health posts lack adequate WASH services, contributing to persistent diarrheal diseases, skin infections, and recurrent cholera outbreaks ([SDC, 2025; South of the Sahara](#)).

In response, the **Local Governance and WatSan Niassa** project (2012-2026, before [GoTAS](#)) supports the provincial government and is implemented by [SNV-United Purpose](#). The project promotes **decentralised WASH service delivery** by combining community empowerment to articulate needs and rights, with strengthened government capacity for service provision. This is complemented by evidence-based policy dialogue to institutionalise effective approaches ([SDC, 2025](#)).

Since 2012, the project has enabled more than 700,000 people across seven districts to access water and sanitation services, using 500 water points, 5 piped systems, and 25,000 latrines, operated and maintained by 384 water and sanitation committees, almost half led by women. Trained local mechanics (artisans) support these committees with complex repairs. 300 communities were declared Open Defecation Free and health facilities reported reductions in diarrheal disease cases ([SDC, 2025](#)).

A distinctive feature of the programme is its use of **government systems for financing and implementation**. Project funds for WASH infrastructure are channelled through the provincial and district governments, using public systems for disbursement and financial management. Provincial and district staff are trained in procurement, financial management, planning, monitoring and data collection using their own state mechanisms, tools and processes.

Complementary investments strengthen transparency and accountability through participatory planning, social audits, and community monitoring of public and private services, supported by NGOs and civil society organizations ([SDC, 2025](#)). Overall, the programme contributed to decentralization, enabling districts to take greater ownership of WASH service delivery while reinforcing participatory governance mechanisms at community level ([Prowater Consultores, 2020](#)).



► Figure 1: Drawing water from a well in Niger, 2025 © Helvetas



► Figure 2. Improved access to water facilities in Mozambique © SDC

Supporting local authorities in providing access to WASH services in Niger

Access to WASH services in Niger remains limited: in 2024, 47% of the population lacked basic drinking water services, 84% lacked basic sanitation, and 79% did not have a hand-washing facility with soap and water at home ([JMP, 2024](#)).

The Rural Hydraulic Support Programme for the Water and Sanitation Sector (**PHRASEA**) (2012-2027, implemented by [Helvetas](#)) aims to improve sustainable access to drinking water for people and livestock, as well as basic sanitation, by strengthening the capacity of local authorities ([SDC, 2024](#)). The programme focuses on the Dosso and Maradi regions, strengthening **local and regional governments** who are at the centre of planning, construction, management, and maintenance of WASH infrastructure and services, in line with Niger's decentralization process.

A key feature of PHRASEA is its use of public financing mechanisms. In Phase 2, half of the project funds were channelled through a **public investment mechanism** managed by the National Agency for the Financing of Local Authorities ([ANFICT](#)). This mechanism also disburses payments to contractors for water, sanitation, and livestock infrastructure. The programme supports stakeholders in planning, public procurement procedures, and quality control of works. Following the July 2023 political crisis, funds are temporary channelled through Helvetas, while ANFICT continues to play a central role alongside regional and local authorities in procurement processes.

By 2023, PHRASEA had enabled 318,000 people (52% women) to access water and sanitation, supported 31 local authorities as project owners (across seven departments in two regions) and facilitated the construction of 120 pastoral wells. Three sub-basin management bodies – the first of their kind in Niger – have been established contributing to improved knowledge and enhanced water security in the context of climate change ([SDC, 2024](#)). Overall, PHRASEA

illustrates how municipal ownership, public financing mechanisms, and local accountability can expand access to rural WASH services in a fragile Sahel context.

Humanitarian WASH aid across Africa

In crisis situations caused by conflicts, disease outbreaks or natural disasters, access to water and sanitation becomes a priority. Over the past five years, Switzerland's humanitarian aid has supported WASH interventions across several African countries, notably in the **Democratic Republic of the Congo (DRC), Sudan, Chad, and South Sudan** ([SDC, 2026](#)). In the eastern part of DRC, multiple crises overlap, including armed conflicts, large numbers of internally displaced people (IDPs), and recurrent disease outbreaks.

In North Kivu Province, a **multisectoral humanitarian** project (Phase 3, 2024–2026, implemented by [Solidarités International](#)) operates in four health zones of Beni territory. It aims to improve access to WASH, food security, and nutrition of primarily **IDPs, returnees, and host communities**. The project also strengthens the capacity of civil society and local actors to prevent disease transmission—such as cholera and, more recently, Ebola—through hygiene behaviour change, while enhancing the governance and performance of water and sanitation services through user participation ([SDC, 2025](#); [SDC, 2025](#)).

A parallel **Integrated Emergency Aid** project (Phase 4, 2024–2026, implemented by [HEKS-EPER](#)) operates in the hard-to-access areas in North Kivu Province, targeting 488,800 people. It adopts a **multisectoral** approach that combines water supply, sanitation, agriculture and fisheries support, rural access, and both unconditional and cash-for-work assistance ([SDC, 2025](#); [HEKS-EPER, 2025](#)).

These contexts require integrated humanitarian responses that **link WASH, food security, and public health**—addressing urgent needs while, where feasible, building the conditions for longer-term development.

3. Water for resilient livelihoods of pastoralist communities

Pastoralism is the dominant livelihood system in Africa's drylands, where communities rely on mobile livestock production to access water and pasture across arid and semi-arid areas. It plays a critical role in food security and rural economies, contributing up to 44% of agricultural GDP in some African countries (FAO, 2018).

Pastoralist and agro-pastoralist communities in the Horn of Africa, particularly in Somalia, eastern and southern Ethiopia, and northern Kenya, are increasingly affected by environmental degradation and climate change. The depletion of water and pasture resources compromises livelihoods, intensifying mobility pressures, and exacerbating tensions in already fragile contexts.

Addressing these challenges requires **integrated approaches** that improve natural resource management, strengthen drought resilience, and support livelihood diversification, as illustrated by the following initiatives in Ethiopia and Somalia.

Strengthening Ethiopian pastoralist communities' resilience to drought

Pastoralist and agro-pastoralist communities in **Ethiopia's Somali Regional State** face growing risks from droughts, land degradation, and climate change. The **Strengthening Drought Resilience** in the Somali National Regional State (SDR-SNRS) project (2014-2026, implemented by GIZ) addresses these challenges in cooperation with the Ministry of Agriculture by promoting sustainable rangeland management and dry valley rehabilitation through participatory approaches (SDC, 2026).

The project focuses on three interrelated outcomes for **(agro-) pastoral drought resilience**: improved natural resource management, strengthened livelihoods, and enhanced institutional capacities to improve service delivery (Boysen et al., 2019).

As part of the natural resource management approach, technologies like **water-spreading weirs** and **dry-stone measures** were locally introduced. The weirs are low structures built across ephemeral streambeds to slow down flood flows, spread water across adjacent land, and enhance infiltration and trap nutrient-rich sediments (see GIZ, 2023).

This reduces soil erosion in and along riverbeds, increases **water retention** in valley floors, and improves water availability for crop and pasture production, thereby rehabilitating degraded dry valleys (GIZ, 2022). This technology had a return on investment within two to three years and was replicated by surrounding communities and regional agricultural authorities (GIZ, 2022; Boysen et al., 2019). Water-spreading weirs, together with dry stone measures, are increasingly promoted within Ethiopia's watershed and rangeland development efforts. By the end of phase 2, 2,100 hectares had been rehabilitated, and 57 weirs constructed, benefiting 20,000 people (SDC, 2025; see [here](#) for extension materials and manuals on weirs).

Current efforts focus on strengthening **institutional capacities** at local level to ensure participatory planning, design, maintenance, and use of water-spreading weirs, as well as equitable access to the rehabilitated land for production benefits. At district, regional, and national levels, the project supports the scaling and institutionalisation of soil and water retention measures for improved productivity and resilience (SDC, 2025; Boysen et al., 2019).



► Figure 3. Dry stone measure from above (GIZ, 2021)

Increasing the resilience of Somali agro-pastoralist communities

Also in neighbouring **Somalia**, recurrent droughts, erratic rainfall, and ecosystem degradation threaten the livelihoods of (agro) pastoralist communities, causing displacement and worsening fragility (SDC, 2025).

The **Somali Resilience Programme** (SomReP) (2014-2026, implemented by a World Vision-lead consortium) aims to increase the resilience of vulnerable people to climate shocks in pastoral, agro-pastoral and peri-urban livelihood zones, and both host communities and IDPs (SDC, 2025; SomReP). The programme seeks to enhance **capacities** at household, community, and institutional level to cope with shocks, adapt and become resilient and for district and national levels to ensure evidence-based policies and regulations that enable **sustainable livelihoods** and economic growth (SDC, 2025). SomReP enhances **people's resilience** to drought by improving reliable access to water for people and livestock, promoting soil and water management, and community ownership and sustainability.

Water access remains critical in Somalia, with households taking on average 18 minutes to reach water points in wet seasons and up to 47 minutes in dry seasons (SomReP, 2021). **Solar powered multi-use water systems** reduced the risks, distance and time spent on water collection and

the costs for water trucking for livestock (SomReP, 2022; SomReP, n.d.). These efforts include strengthening the community structures to manage the systems and equitably distribute water as well as promoting sustainable land use and water retention practices at water catchment level (SomRep).

Drought and flood risk management is integrated into the programme through contingency funds -to support post-shock rehabilitation of water systems and emergency water trucking- as well as community-based risk planning and early warning systems (SomReP). Collaboration with government stakeholders also enhances regulatory frameworks, including water infrastructure standards and ecosystem protection measures.

By 2023, 81.5% of households had year-round access to water for multiple uses, a doubling compared to 2019. Agricultural productivity improved by 15% since 2020, with all households engaging in diversified income-generating activities (SDC, 2025).

These experiences highlight the options to support more climate **resilient pastoral livelihoods** for dryland communities in the Horn of Africa: water infrastructure, good management practices to retain soil and water and local governance structures.



► Figure 4. Livestock watering at Boji Borehole, Isiolo, Kenya (SDC, 2021) © MWA

4. Securing water for food security

Rainfall is essential for food production. Access to surface- or groundwater for agriculture helps farmers manage the increasing rainfall variability while healthy ecosystems help regulate water availability over longer time spans. Strengthening water management along the green to blue continuum is essential for improving agricultural productivity, reducing climate vulnerability and securing livelihoods (see [World Bank](#), 2026).

Preserving wetlands for food security in the Sahel

Wetlands in the **Sahel** provide essential ecosystem services that sustain agricultural livelihoods and food security ([Jain](#), 2023). Rivers, floodplains, inland deltas, and lakes act as “blue lifelines”, offering resources for farmers, fishermen, and pastoralists, particularly during droughts. Pressures on these wetlands are mounting due to agricultural expansion, pollution and climate change ([Wetlands International](#), 2022).

The [Blue Lifelines](#) project (2019-2023) implemented by Wetlands International, Caritas Switzerland, Hydrosolutions Ltd., and [IWMI](#), sought to address these challenges. The project, also known as the Improving Food Security and Nutrition in the Sahel by Safeguarding Wetlands through Ecological Sustainable Agricultural Water Management ([SaWeL](#)), worked in **Mali** and **Ethiopia** across multiple scales. It aimed to promote **ecologically sustainable agricultural water management** practices and integrate smallholder farmers into markets ([Wetlands International](#), 2021).

Key aspects were creating access for farmers to **technologies, information and resources** to improve uptake of

sustainable agricultural practices, and building knowledge and information systems on the **hydro-ecological functioning** of wetland landscapes for use by farmers and local governments ([SaWeL](#), 2021; [Hydrosolutions](#), 2020).

In **Mali**’s Sourou sub-basin, small-scale food producers received training in agroecological practices. Hydro-meteorological bulletins distributed via WhatsApp helped stakeholders to make informed decisions. The project also promoted drought-resistant cowpea to enhance soil fertility and food security ([Jain](#), 2023). In **Ethiopia**’s Ziway Shalla sub-basin, communities were supported to improve water use efficiency and government bodies to use irrigation management tools and enabling authorities to monitor water use and allocate water to ensure sustainability ([IWMI](#), 2024). The project also trained farmers in water-conserving planting techniques like the [Zai](#) method, facilitated gully rehabilitation and other buffer zone and catchment management practices ([Jain](#), 2023; [IWMI](#), 2024).

Managing runoff water for agriculture in Sahelian Chad

In **Chad**’s Sahelian belt, food and nutrition crises persist despite significant renewable water resources, aquifers, and a dense hydrological network ([SDC](#), 2024; [AFD](#), 2022). Seasonal watercourses known as ouadis carry floodwaters away into deserts, instead of watering crops and recharging groundwater in populated areas. The degradation of fertile lowland valleys due to poor agricultural practices and erratic rainfall, compromise food production, while water availability remains a key constraint on rural livelihoods and development ([AFD](#), 2022; [SDC](#), 2024).



► Figure 5. Women working in the fields in Mali © Fabian Biasio, Caritas ([Wetlands International](#), 2021)

The Runoff water management in the Sahelian region of Chad or [GERTS](#) programme (2012-2025, GIZ implemented) aimed to improve food and nutritional security for the populations in four provinces in central-eastern **Chad**. The programme supported communities and local authorities in the sustainable management and rehabilitation of degraded valleys, enabling vulnerable groups, especially women and youth, to benefit economically from these lands. An **integrated approach** combined engineering works with agro-pastoral support, value chain development, and community participation to ensure ownership and long-term viability ([GERTS](#), 2021; [GERTS](#), n.d.).

GERTS promoted the use of **water-spreading weirs**: low stone-and-mortar barriers built across seasonal valley floors that slow down runoff, spread floodwaters and reduce erosion. These structures enable regular and moderate flooding of the surrounding lowland areas, increasing water infiltration and sedimentation ([GERTS](#), n.d.). This enhances soil water for rainfed crops like millet and sorghum, supports post-flood recession agriculture, and improves groundwater recharge favourable for irrigation and livestock watering ([GERTS](#), n.d.; [Niill](#), 2012).

The approach **combines engineering works** with local **land-use agreements**. By 2022, over 190 water-spreading weirs have been constructed based on local agreements, contributing to substantial improvements in food security and income, while reversing land degradation ([AFD](#), 2022). More than 216,000 land users, including 100,000 women and 65,000 young farmers, gained access to fertile land, with yields increasing by an average of 20%. Local agreements helped ensure equity and prevent water-related conflicts, and opened new opportunities for youth, contributing to reduced migration ([SDC](#), 2024). The **conditions for scaling** of the water spreading weir approach were laid: over 50 local private sector companies are capable to design, construct and supervise while national ministries integrate the approach into their sectoral programmes ([GERTS](#), n.d.).

Across Africa, small-scale farmers mostly depend on rainfall to grow their crops. This reliance on increasingly irregular rainfall is one of the reasons for suboptimal agricultural productivity. In rain-fed agricultural contexts, an increase in yields and water productivity can be achieved through better managing water resources. The project **Strengthening agricultural water efficiency and productivity on the African and global level** (2014-2019, [FAO-Ag-WA](#) implemented) aimed to spread agricultural water management methods to reduce food insecurity ([SDC](#), 2025; [SDC](#), 2019).

Across three project sites in **Burkina Faso**, **Morocco**, and **Uganda**, irrigation water supply challenges differed; however, all sites faced common constraints in **on-farm water management**. Key areas requiring improvement included water allocation, land preparation, and agronomic practices such as crop rotation, nutrient management, and pest control in order to increase yields and water-use efficiency. The project strengthened the **capacity of stakeholders** to improve crop water productivity in small-scale agriculture through training on [AquaCrop](#) — FAO's crop-water productivity model — and its application in both rainfed and irrigated farming systems.

Based on groundwork done in the three country sites, a series of **policy and practical guidance** publications were generated, relevant for Africa and globally:

- **Thematic briefs** on water productivity ([FAO](#), 2018), **water accounting** ([FAO](#), 2018), **water efficiency** ([FAO](#), 2019), and **water harvesting** ([FAO](#), 2019)
- **Field guides** oriented to practitioners and extensionists to **improve water use efficiency** ([FAO](#), 2019) and **water productivity** in small-scale agriculture ([FAO](#), 2020).
- **Policy guides** to help decision-makers create the institutional, technical and regulatory conditions under which farmers can improve **water use efficiency** ([FAO](#), 2019) and **water productivity** ([FAO](#), 2020).



► Figure 6. Irrigation water canal in Unaa Village, Dollow, Somalia © DRC ([SDC](#), 2021)

5. Managing water resources for sustainability and peace

Ensuring sustainable and equitable water allocation for human, pastoralist, and agricultural uses depends on strong water governance institutions and effective water management capacities from the community to the national level, and across borders. The following initiatives have contributed to stakeholders' improved water management across East and West Africa.

Improving knowledge and capacities for sustainable water resources management

Water scarcity is a major challenge in **Chad**, where agriculture and pastoralism support most of the population and are highly dependent on rainfall. Better information on water resources is critical for water supply, food security, territorial planning, and climate resilience.

The **RésEAU Chad** project (2012-2028; implemented by [UNITAR](#) & [Dorsch Impact GmbH](#)) strengthens the country's national capacity for IWRM by generating **hydrogeological knowledge** on aquifers and surface water resources, establishing a **national water information system**, and building long-term **institutional** and **academic expertise** in water resources management through a master programme on hydrogeology and GIS ([SDC](#), 2025). Programmatically, strengthened water management is considered a cornerstone for both access to decentralised basic services that support health as well as conflict prevention and peace ([SDC](#), 2024).

The RésEAU programme significantly strengthened the national capacity to generate and use water information for planning by gathering and producing reliable hydro(geo)logical **data and maps** and making them accessible for decision-makers at the Centre for Documentation and Geographical Information ([CDIG](#)). An external evaluation found that these products improve the knowledge base required for IWRM, such as allowing the planning of drinking-water supply infrastructure and guiding borehole siting ([Cosinus Conseils](#), 2021).

Towards environmental sustainability in private-sector water use

Water quality is declining across many African cities due to the discharge of untreated municipal wastewater and industrial effluents into natural water bodies. In **Ethiopia**, the project **Tackling pollution from the apparel sector through engaging SMEs in Water Stewardship** (2019–2023) was implemented by a consortium of [Alliance for Water Stewardship](#), [AbTF](#), [CDP](#), [Solidaridad](#) and [Water Witness International](#). It sought to reduce water pollution and promote more sustainable water use in the apparel value chain by engaging cotton producers and textile production enterprises and buyers for more sustainable water use ([SDC](#), 2023).

The project contributed to increased awareness and readiness to act among global fashion brands and investors, while also supporting concrete improvements in water



► **Figure 7. National experts review the content and format of map of N'Djamena, Chad** ([CDIG](#), 2025)

management among Ethiopian textile and garment manufacturers and cotton producers. An external evaluation found that farmers, SMEs and communities around industrial parks benefited from more efficient water use and reduced pollution ([Skat Consulting](#), 2023). This was achieved notably by undertaking a **water security scan** of Ethiopian cotton production ([Solidaridad & AbTF](#), 2021) and the **training** of cotton farmers and extension agents on better water management practices developing visual training material, in collaboration with the Ministry of Agriculture ([Skat Consulting](#), 2023; [AbTF](#), 2023).

Turning transboundary water cooperation into investable projects

Water resources in Africa are highly transboundary: the continent has 63 international river basins, which cover 64% of its land area and account for 93% of its surface water resources. This makes cooperation between riparian countries essential for sustainable water allocation, pollution control and ecosystem protection ([African Development Bank](#), 2021).

In **West Africa**, SDC supports transboundary cooperation through the **Financing Basin Development at Municipal Level** as part of the **Localized Blue Peace initiative** (2021-2027) implemented by United Nations Capital Development Fund [UNCDF](#) ([SDC](#), 2025). Its objective is to help municipalities **access new sources of financial capital** for local, water-related projects embedded in **wider basin development**, thereby enhancing sustainable economic development and peaceful societies ([SDC](#), 2025).

At regional level, the project supports the **Gambia River Basin Development Organisation (OMVG)** in developing its [Integrated Development Master Plan](#) to 2040, covering river basins shared by The Gambia, Guinea, Guinea-Bissau and Senegal. The Master Plan identifies 179 multisectoral projects in areas such as water and sanitation, agriculture, energy and navigation. Of these, 26 priority projects are bundled into the [2030 Joint Investment Plan](#), worth nearly USD 8 billion ([OMVG](#), n.d.; [Poncin et al.](#), 2024).

These basin planning instruments help the OMVG to directly **mobilise finance** from [investors](#) for water investments through **blended finance**, including technical assistance, guarantees and a future **Blue Peace Bond**.

UNCDF supports **municipalities** in the design of multi-sector water-related projects within this transboundary basin development plan, through capacity building on local water challenges, municipal finance and sustainable financing solutions. This would follow the example of the [Freetown City Council](#) which has improved access to water through investing in solar-powered water kiosks and public toilets across the city, by combining concessional financing tied to sustainability outcomes with community-driven service models ([UNCDF](#), 2025).

6. Lessons in a nutshell



Water security in Africa is both a **foundation** and a **connecting** thread between people's health, livestock-based livelihoods, food security, and climate resilience. The experiences in this brief show that access to safe drinking **water, sanitation and hygiene** is first and foremost a public health priority. In Mozambique, Niger and humanitarian settings in DRC, WASH services reduce exposure to diarrhoeal disease, cholera and other outbreaks. A decentralised approach that strengthens local authorities, community committees and accountability mechanisms, increases the likelihood that services continue to function over time.

In dryland areas, **water for people** cannot be separated from **water for livestock**. Pastoral wells, multi-use water systems and solar-powered schemes reduce the distance, time and cost of accessing water, while supporting herd survival and household resilience during drought. Yet infrastructure alone does not guarantee equitable outcomes. Local management structures, maintenance systems, land-use agreements and conflict-sensitive allocation rules are essential to prevent competition around scarce water points and pastures.

Food security depends on managing water across the **green-blue continuum** and across landscapes. Rainfall, runoff, soil moisture, surface water and groundwater - all

contribute to agricultural productivity. Experiences from Mali, Ethiopia and Chad show that water-spreading weirs, wetland protection, improved agricultural water management, agroecological practices and the use of hydro-meteorological information can increase yields, restore degraded land and expand opportunities for women and youth.

Climate resilience requires moving beyond water access projects towards integrated, **risk-informed water resources management**. Stronger data systems, hydrogeological knowledge, basin planning, pollution prevention and transboundary cooperation help balance competing demands across households, livestock, agriculture, ecosystems, and industry.

The overarching lesson is that **water interventions deliver the greatest benefits when they are designed deliberately from a Green Nexus perspective** by improving health, sustaining livestock, securing food production, restoring ecosystems, and reducing climate and conflict risks. Ideally, such approaches generate co-benefits. At minimum, they make trade-offs explicit. Future efforts should therefore strengthen local ownership, invest in data and capacities, provide financial support through public systems where feasible, and design water interventions around common risks and shared benefits.



► **Figure 8.** A solar-powered pumping station providing irrigation water for agriculture in Kumi District, Eastern Uganda © Amazing Aerial / Alamy Stock Photo

Resources

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Section Water

Cover photo

Two herders use a pastoral well, discharging water into a spillway. The water is gravity-fed to a trough accessible to their herd, located some distance from the well itself, to avoid jostling, trampling and contamination of the well. This system was developed by the Niger-Switzerland Water Programme (PHNS) in the 2000s and promoted by PHRASEA. Saé Saboua, Maradi, 2022 ©Helvetas / Moumouni Magawata