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Diversifying sources
of finance for water in Africa

**Aude Farnault,
Khalifa Sarr**

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ENVIRONMENT DIRECTORATE

Diversifying sources of finance for water in Africa

Environment Working Paper No. 248

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This document analyses challenges to financing water in Africa and discusses ways to diversify related funding and financing sources. It was developed in the context of the “10th Roundtable on Financing Water: Regional meeting on Africa”, co-convened with the African Development Bank in Abidjan and online in November 2023. This work contributes to ongoing work on Financing Water, under the EPOC PWB item 2.3.2.2.3.

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Abstract

This working paper provides an in-depth review of the opportunities and challenges surrounding water investment in Africa. It also presents the state of play in the use of ultimate sources of funding (the “3Ts”: tariffs, taxes, and transfers) and financing for water on the continent, showing that these sources are not currently being used to their full potential and in the most efficient and equitable way.

In this context, there is a wide range of options to scale up and improve water finance in Africa and to achieve SDG 6 - and, by extension, all the Sustainable Development Goals - on the continent. This paper follows the lifecycle of a project, paying particular attention to equity and affordability. It presents concrete proposals to strengthen water policy investment frameworks, build well-prepared and investment-ready water projects, scale up risk mitigation instruments for water, and diversify financing instruments and sources.

Keywords: water, water finance, finance and investment, economics, tariffs, taxes, transfers, Africa

JEL Classification : Q25, Q28, Q21, F30, G10, G20, H23, H54, H81, O13, O20

Résumé

Ce document de travail fournit une analyse approfondie des opportunités et des défis liés à l'investissement dans le secteur de l'eau en Afrique. Il présente également l'état actuel de l'utilisation des sources ultimes de financement (les « 3T » : tarifs, taxes et transferts) et autres sources de financement de l'eau sur le continent, montrant que ces sources ne sont pas actuellement utilisées à leur plein potentiel et de la manière la plus efficace et la plus équitable.

Dans ce contexte, il existe un large éventail d'options pour accroître et améliorer le financement de l'eau en Afrique et pour atteindre l'ODD 6 - et, par extension, tous les Objectifs de Développement Durable - sur le continent. Ce document suit le cycle de vie d'un projet, en accordant une attention particulière à l'équité et à l'accessibilité financière. Il présente des propositions concrètes pour renforcer les cadres d'investissement dans l'eau, construire des projets d'eau bien préparés et prêts à l'investissement, développer les instruments d'atténuation des risques financiers pour l'eau et diversifier les instruments et les sources de financement.

Mots-clés : eau, financement de l'eau, financement et investissement, économie, tarifs, taxes, transferts, Afrique

Classification JEL : Q25, Q28, Q21, F30, G10, G20, H23, H54, H81, O13, O20

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The responsibility for the content of this publication lies with the authors.

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Executive summary

In Africa, a significant proportion of the population still does not have access to safely managed drinking water and sanitation services. According to SDG 6 monitoring, 69% of the sub-Saharan population do not have access to a safely managed drinking water service and 76% to a safely managed sanitation service (UN-Water, 2022^[1]). **This lack of access has considerable social and economic consequences.** For instance, inadequate water, sanitation and hygiene (WASH) has significant adverse health consequences, affecting primarily women and girls. It is contributing to 430,000 preventable deaths each year in Africa. Under a business-as-usual scenario, the Sahel and Central Africa are projected to experience negative GDP impacts of 12% and 7% respectively by 2050 because of climate change effects on water resources (World Bank Group, 2016^[2]).

Efficient and equitable investments in water are a prerequisite for the sustainable development of economies in Africa, as water-related investments connect multiple sectors and policy agendas, including climate, agriculture, energy, urban development, public health and education. At the same time, the African continent offers enormous opportunities for sustainable, including water-related, investments (related to its dynamic growth, young population, natural resources, among others).

Despite this sound socio-economic case and the unique assets of African economies, the financing gap is massive. Investment in water in Africa faces a double challenge: not only does the continent attract less investment due to overstated perceived risks, compounded by a challenging macroeconomic and financial context despite the continent's potential and progresses made over the past year, but investors do perceive water-related investments as more risky and generally less attractive than other sectors, due to their inherent features and complexity.

The main sources of funding (the "3Ts": tariffs, taxes, and transfers) and financing for water are not currently used to their full potential and in the most efficient and equitable ways on the continent. While cost recovery rates differ within countries, from rural to urban settings and by sub-sector, tariffs for water services applied in Africa are far below cost recovery levels. In addition, the predictability of tariff adjustments is sometimes uncertain, which can deter investments. Water subsidies in place tend to be poorly designed, not targeted, and inefficient. Furthermore, there is significant scope to improve the use of taxes, including through pollution and resource taxes. In parallel, official development assistance (ODA) flows for water in Africa are decreasing and tend to be biased towards certain types of water sub-sectors or projects, to be concentrated on a limited number of countries and to fail to reach people that need them most. Finally, provided certain conditions are met, there is a potential for making a more effective and equitable use of public-private partnerships (PPPs) for water.

In this context, there is a wide range of options for making significant progress in financing water in Africa and achieving SDG 6 - and, by extension, all the SDGs - on the continent. African governments seeking to increase and diversify their financial resources for water now have a number of options, beyond foreign aid. The approach of this paper is to follow projects' lifecycle, paying particular attention to equity and affordability issues. Hence, recommendations start with strengthening the water policy investment frameworks in African countries. Then, the focus is on conditions to provide financial institutions and investors with a strong pipeline of (equitable) projects that can be de-risked through various instruments. Finally, this paper looks at some financing sources that go beyond classical ones.

1. **Strengthening water policy investment frameworks:** This section focuses on measures for more predictable revenues and efficient subsidies in water to attract more capital, and to ensure reliable and equitable access to water and sanitation for all. It suggests that, in some specific contexts (in particular urban environments), tariffs could be increased whereas affordability could be addressed through targeted social measures. In addition, governments could establish water subsidies accounts to centralise subsidies for the sector based on the forecasted needs and disburse accordingly. Targeted subsidies and cross-subsidies could also be developed to guarantee reliable and affordable access to water and sanitation for all, including in rural areas and informal settlements. Economic instruments and policies to incorporate the cost of water into the energy, agriculture sectors and other water-intensive sectors at the national level could also be expanded.
2. **Building well-prepared and investment-ready water projects:** This section includes recommendations to: i) develop structured long-term macro/country-wide water plans (including through establishing strong and credible water project facilitation units) to provide visibility to investors and incentivise them to make long-term pledges and provide appropriate financing instruments; ii) assess the level of subsidies / concessional resources necessary for private sector involvement to guarantee affordability; as well as iii) support preparation and development at project level, including the creation of water project preparation and development funds.
3. **Scaling up risk mitigation instruments for water:** which includes loan guarantees, such as Partial Risk Guarantees to cover liquidity issues at project level and Political Risk Insurances. Blended finance funds for water should be expanded at global (building on the experiences of the Green Climate Fund for example), regional and local levels (with substantial contributions from multilateral development banks (MDBs), donor countries, philanthropists). At the same time, to ensure that countries most in need of resources are prioritised and that ODA is catalytic by de-risking investment, eligibility criteria for water-related ODA could be reviewed (to include countries' financial efforts towards water, gap in water financing, clear water sector strategy and plan, and pipeline of water projects).
4. **Diversifying financing instruments and sources,** which can be done through:
 - **Accessing domestic financing** through financing instruments developed to tap domestic capital markets for water and facilitate exits and trades. This includes country platforms with bankable water projects, dedicated instruments to mobilise local savings and domestic guarantee platforms. National development banks (NDBs) and local funds in Africa, which were almost absent from the water sector until now, could play a role in scaling up domestic finance for water.
 - **Expanding innovative funding arrangements** represents a significant potential to raise additional revenue from private actors for water management and internalise pressures on water bodies. Several financing mechanisms and approaches are particularly promising in this respect, including Green, Social and Sustainable Bonds, Payments for Ecosystem Services (PES), Extended Producer Responsibility (EPR), or fiscal policies based on the Beneficiary Pays principle, such as land value capture mechanisms.
 - **Coordinating multiple stakeholders** through innovative arrangements such as Just Water Partnerships (JWP) could also enable to crowd in additional capital.

Finally, the reform of the international finance architecture can be an opportunity to scale up finance for water in Africa. G20 countries should accelerate the rechannelling of Special Drawing Rights (SDRs) through the Multilateral Development Banks, that can use their own AAA ratings to scale up the resources received by a factor of three to four and finance more projects, including for water. Furthermore, there should be a stronger case for allocating a greater share of rechannelled SDRs through MDBs or the IMF Resilience and Sustainability Trust to water projects. In addition, debt-for-water swap could be further developed, contributing to financing water while addressing high-level of sovereign debt of emerging economies. Finally, the definition of the hydrological cycle as a global common good could allow water projects have access to potential new financial windows created as part of the reform of the global financial architecture.

Table 1. Key Recommendations

	Key recommendations
Strengthen the water policy investment framework	Implement appropriate tariffs, as well as targeted subsidies and cross-subsidies through tariffs, ensuring that consumers who can afford it pay full tariffs and even an additional limited tax, to guarantee reliable and affordable access to water for all including in rural areas and informal settlements
	Make greater use of economic instruments for water in Africa, in particular taxes including pollution and resource taxes
	Establish water subsidies accounts to centralise subsidies for the sector: on top of annual government's contribution, the subsidies account can be complemented by donors and other sources of finance, such as water taxes/fees from water intensive consumption industries, when applied
Build well-prepared, equitable and investment-ready water projects	Establish strong and credible water project facilitation units to support governments in the structuring of long-term water project pipelines and their execution at country level
	Establish water project preparation and development funds to support project preparation and development
Scale up risk mitigation instruments for water	Scale up loan guarantees for water, including Partial Risk Guarantees to cover liquidity issues at project level and Political Risk Insurance
	Encourage ODA providers to develop eligibility criteria for water-related ODA, that could include countries' financial efforts towards water, including having a clear water sector strategy and plan, a strong pipeline of water projects, and countries' water financing gap and need for grants and concessional resources to attract more private capital
	Support the creation of blended finance funds for water at global (on the model of the Green Climate Fund), regional and local levels
	Develop portfolio pooling arrangements to attract large-scale commercial investment by reducing the transaction costs associated with risk-sharing arrangements for individual investments
Access domestic financing	Develop financing instruments to tap domestic capital markets for water in a more liquid manner, including: i) regional or country platforms with bankable water projects that can be packaged into financing instruments sold to the markets or can be refinanced with bonds, so that the initial investors can exit and recycle their money; ii) mobilise local savings through dedicated instruments into an operational and de-risked water infrastructure fund
	Establish domestic guarantee platforms to provide access to local currency financing and mitigate currency risk, to mobilise private capital for water
	Leverage national development banks and local funds for water, which are particularly relevant for providing long-term financing in local currency at favorable interest rates, channeling sovereign loans to municipalities and utilities, participating in special purpose vehicles, among others.
Leverage public-private partnerships	Develop public-private partnerships for water, based on models that ensure that risks and benefits are shared in a balanced way between public and private actors, and that PPPs achieve good outcomes, including reduction in water losses (non-revenue water), long-term network resilience as well as equitable and affordable access
	Where appropriate, develop output-based long-term PPP agreements
Develop innovative funding arrangements	Develop innovative funding arrangements to raise additional revenue from private actors for water management and internalise pressure on water bodies, resulting from abstraction and pollution, such as Payment for Ecosystem Services or fiscal policies based on the Beneficiary Pays principle, such as land value capture mechanisms
	Leverage green, social and sustainable bonds, which represent a promising but untapped potential for water in Africa
Place water within the reform of the global finance architecture	Support the allocation of a greater share of rechanneled special drawing rights through multilateral development banks or the Resilience and Sustainability Trust to water projects
	Where appropriate, implement debt-for-water swap, contributing to financing water while addressing high-level of sovereign debt of emerging economies
	Support the definition of the hydrological cycle as a global common good, so that water projects have access to potential new financial windows created with the reform of the global financial architecture
	Make government budget support and public development bank loans, in certain cases, conditional on water-intensive sectors treating water as seriously as the global climate crisis

Note: This list of recommendations includes some of the key options proposed in this working paper for diversifying water financing sources in Africa. This list is not exhaustive. Further recommendations and more detailed explanations can be found in the document.

Source: Authors

Abbreviations and acronyms

BOT	Build Operate Transfer
CRS	Credit Reporting System
DAC	Development Assistance Committee
DFI	Development Finance Institution
DIC	Direct Investment in Companies
EPR	Extended Producer Responsibility
GDP	Gross Domestic Product
JWP	Just Water Partnership
KPIs	Key Performance Indicators
LICs	Low-income countries
LMICs	Lower middle-income countries
LVC	Land Value Capture
MCP	Managed Co-Lending Portfolio Program
MICs	Middle-income countries
MPWI	Multipurpose water infrastructure
NDBs	National Development Bank
ODA	Official Development Assistance
O&M	Operation and Maintenance
PES	Payments for Ecosystem Services
PRG	Partial Risk Guarantee
PPP	Public-Private Partnership
MDB	Multilateral Development Bank
NbS	Nature-based solutions
NRW	Non-revenue water
NWRM	Natural Water Retention Measures
SDG	Sustainable Developments Goals
SDRs	Special Drawing Rights
SPV	Special Purpose Vehicle
SSA	Sub-Saharan Africa
UMICs	Upper middle-income countries
WACC	Weighted Average Cost of Capital
WASH	Water, Sanitation and Hygiene
WFD	Water Framework Directive
WSS	Water Supply and Sanitation

Introduction

Water-related investments deliver substantial benefits for water security and sustainable development. “Water-related investments” refer to a broad range of investments that contribute to water security through the delivery of water and sanitation services, and the management of water resources and water-related risks¹ (OECD, 2022_[3]). Water-related investments connect multiple sectors and policy agendas, including agriculture, energy, urban development, public health and education. Due to their cross-cutting and underpinning nature, such investments are central to achieving the Sustainable Development Goals (SDGs), global climate and biodiversity goals (OECD, 2022_[3]).

The world is not on track to meet SDG 6 on water and sanitation largely due to insufficient levels of water-related investment, particularly in Africa. In Africa, a significant proportion of the population still does not have access to safely managed drinking water and sanitation services, and this lack of access has considerable social and economic consequences. 69% of the Sub-Saharan population does not have access to a safely managed drinking water service and 76% to a safely managed sanitation service (UN-Water, 2022_[1]). Estimates showed that, for many years, Sub-Saharan Africa lost approximately 5% of its GDP each year due to issues related to water scarcity, polluted water, or inadequate sanitation (UN-Water, 2014_[4]). At the same time, the cost of achieving SDG 6 would represent 2-4% of GDP for two-thirds of African countries and 1-2% of GDP for the remaining one-third (African Union, 2023_[5]).

There is significant scope to mobilise sources of funding and financing for water in Africa more effectively (including private capital). Globally, water-related investment has historically been financed by public budgets, including international transfers, with contributions of users via tariffs, abstraction charges, and other economic instruments (OECD, 2019_[6]). Despite the great opportunities offered by the continent in terms of investment in water, water represents a limited share of public budgets in Africa (African Union, 2023_[5]) as illustrated in Chapter 2, national water strategies for water are not fully implemented and budgets are not fully spent (WHO, 2022_[7]). Tariffs set by African countries are far below cost recovery levels (WHO, 2021_[8]). ODA flows for water in Africa are decreasing and failing to reach countries most in need. PPP models and private equity investments, including with Blended Finance, for water in Africa are emerging but have not reached scale. This paper presents concrete options which are opportunities to tap into a wider range of financing sources (users, industries, philanthropies, private investors and domestic commercial banks) more effectively, while ensuring a fair distribution of risks and rewards between the public and private sectors.

This working paper provides an in-depth understanding of the issues surrounding water investment in Africa, looking at the enormous opportunities offered by the continent, in terms of sustainable, including water-related, investments as well as the very specific challenges it faces. It also presents the state of play in the use of ultimate sources of funding (the “3Ts”: tariffs, taxes, and transfers) and financing for water on the continent, showing that these sources are not currently being used to their full potential and in the most efficient way. Looking ahead, this paper shows that there is a wide range of options available to make

¹ Water risks refer to the risks, in terms of their potential likelihood and impact, of water shortage (e.g. droughts), water excess (e.g. floods), water pollution, and the risks of undermining the resilience of water-related ecosystems (OECD, 2016_[31]).

significant progress in financing water in Africa and achieving SDG 6 - and, by extension, all the SDGs - on the continent. With this objective, it makes concrete proposals following the water projects lifecycle, including strengthening water policy investment frameworks, building well-prepared and investment-ready water projects, scaling up risk mitigation instruments for water, and diversifying financing instruments and sources. It also analyses opportunities that could arise from the reform of the global finance architecture. Although the scope of the working paper (including the data analysis) covers the whole continent, the analysis applies mainly to countries of Sub-Saharan Africa, with certain particularities of North Africa not being explored.

Chapter 1. Challenges to finance water in Africa

Without more efficient investments in water, there will be no sustainable economies in Africa. Despite this sound socio-economic case, the financing gap is massive. The continent offers enormous opportunities for sustainable, including water-related, investments. Nonetheless, (private) investment in water in Africa faces a double challenge: not only does the continent attract less investment due to overstated perceived risks, compounded by a difficult macroeconomic and financial context, but many investors do perceive water-related investments as more risky and generally less attractive than other sectors, due to their inherent features and complexity.

1.1. Investing in water is a prerequisite for the sustainable development of African economies

In Africa, a significant proportion of the population still does not have access to safely managed drinking water and sanitation services, and this lack of access has considerable social and economic consequences. According to SDG 6 monitoring, 69% of the sub-Saharan population do not have access to a safely managed drinking water service and 76% to a safely managed sanitation service (UN-Water, 2022^[1]). In 2020, approximately 387 million people on the continent did not have access to basic drinking water services and 737 million did not have access to basic sanitation services. In addition, around 811 million people have limited or no access to basic hygiene services (World Bank, 2023^[9]). The social and economic impacts of this lack of access is tremendous and there is a strong economic case for investing in water on the continent. Under a business-as-usual scenario, the Sahel and Central Africa are projected to experience negative GDP impacts of 12% and 7% respectively by 2050 because of climate change effects on water resources. (World Bank Group, 2016^[2]). In recent years, Sub-Saharan Africa has lost approximately 5% of its GDP each year due to issues related to water scarcity, polluted water, or inadequate sanitation (UN-Water, 2014^[4]). At the same time, the cost of achieving SDG 6 would represent 2-4% of GDP for two-thirds of African countries and 1-2% of GDP for the remaining one-third (African Union, 2023^[5]). Thus, the cost to African economies of not investing in water will be higher than the cost of investing.

Water-related investments are essential for sustainable development and inclusive growth globally. SDG 6 on Clean Water and Sanitation is fundamental for achieving numerous SDGs, making it a critical element at the centre of the global development agenda. Access to clean and reliable water is fundamental to achieving a wide range of development goals, including poverty reduction, improved health, food security, and economic growth. Most of the SDGs cannot be achieved without access to adequate and safe water (Ait-Kadi, 2016^[10]) (Mugagga and Nabaasa, 2016^[11]). For instance, inadequate water, sanitation and hygiene (WASH) has significant adverse health consequences and is responsible for at least 4% of the global disease burden, contributing to 430,000 preventable deaths each year in Africa.

Inadequate WASH disproportionately affects women and girls². Furthermore, water also plays a crucial role in addressing climate change, in terms of mitigation and adaptation strategies. The Intergovernmental Panel on Climate Change identifies four main reasons (Caretta et al., 2022^[12]): i) half of the world's population is currently facing a water shortage for at least part of the year due to climate change-related factors; ii) climate change is also affecting water requirements for various uses, such as for agriculture ; iii) the majority of climate adaptation responses concern adaptation to water-related risks such as droughts, floods and rainfall variability ; iv) many mitigation measures could potentially have an impact on water security in the future. The work of the Global Commission on the Economics of Water documents how climate change affects precipitation regimes, and endeavours to decipher the economic consequences of such a shift (GCEW, 2023^[13]).

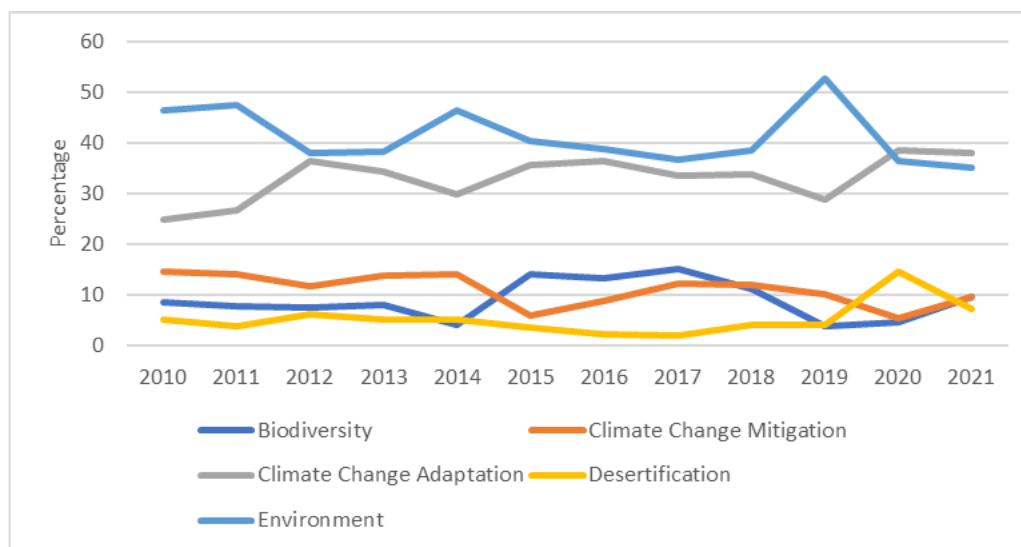
This is particularly true in Africa, where the path to achieving development goals is the most challenging and, at the same time, countries are particularly exposed to climate change and vulnerable to water scarcity. Africa is the continent most affected by climatic shocks, which are felt mainly through water-related issues. More than 130 water-related disasters were recorded on the continent in 2020-2021 (African Union, 2023^[5]). Unpredictable floods and droughts exacerbate displacement, migration and food insecurity; inflict costly damage to infrastructure; and devastate livelihoods, quality of life, biodiversity, ultimately undermining economic growth and well-being, and affecting primarily women and girls. It is the continent with the highest number of countries at high risk of drought, and it is home to eleven of the world's most economically vulnerable countries to droughts and floods (MacAlister et al., 2023^[14]). This situation reflects both geographic features and the lack of investment in sustainable infrastructures that are resilient to climate change, including water infrastructures. By 2050, climate-related costs, driven primarily by water-related hazards, could amount to US\$50 billion annually for African countries (African Union, 2023^[5]). Investing in water in Africa is key to addressing adaptation to climate change as well as in supporting mitigation efforts, and other climate objectives, as highlighted by the contribution of ODA flows for water to Rio markers in Figure 1.1. For instance, in 2021, almost 40% of ODA for water in Africa have been recognised as playing a role in adaptation to climate change.

Despite common goals on adaptation and the growing recognition that climate finance and water and sanitation finance can be integrated in some cases, there are concerns that the focus on climate finance might divert resources away from other critical sectors, including water and sanitation. Indeed, in many instances, climate support is not additional to existing aid commitments, which may lead to a lack of funding for water and sanitation projects that may not be directly associated with tackling the impacts of climate change. To avoid this, it is important for recipient countries, to have comprehensive national plans that integrate water and sanitation goals, and to assess their impacts on climate mitigation and adaptation. It would also be preferable to limit the possibilities of tagging already existing ODA flows (including for water) as climate finance to meet climate finance goals, instead of providing additional financial resources, to deal with the cascading impacts of climate in addition to other development challenges, such as for water and sanitation. The purpose of this document is not to explore this subject in depth, as tackling this complex topic could require an entire Working Paper.

The state of play of ODA for water in Africa, including the recent decrease, is presented in Chapter 2.

² For instance, inadequate WASH has major impacts on schooling outcomes, especially for girls (Prüss-Ustün, Wolf and Bartram, 2019^[64]). Every year, around 40 billion hours of otherwise productive time are spent just collecting water, which disproportionately affects women and girls (African Union, 2023^[5]).

Figure 1.1. Water ODA by Rio Marker in Africa, Marked Principle or Significant



Note: Since 1998, the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) has set up the Rio markers system, consisting of policy markers to monitor and statistically report on the development finance flows targeting the themes of the Rio Conventions. This dataset includes bilateral ODA and its support to environment sustainability and biodiversity, climate change mitigation, climate change adaptation and desertification. A scoring system of three values is used, in which aid activities are “marked” as targeting environment as the “principal objective” or a “significant objective”, or as not targeting the objective.

Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

Despite this strong economic and social case, investment in water in Africa is insufficient. While financial gap for achieving SDG 6 is huge globally, it is wider in Africa. Globally, achieving SDG 6 will require a three- to sixfold increase in current rates of progress. For Africa, achieving the objective would entail a 12-fold increase in current rates of progress for safely managed drinking water, a 20-fold increase for safely managed sanitation, and a substantial 42-fold rise for basic hygiene services. (UNICEF and WHO, 2022^[16]). The level of investment required to achieve the Africa Water Vision 2025 is estimated at US\$64 billion per year on the continent, or around \$50 per capita per year. The annual investment gap to meet this target is estimated at US\$45-54 billion by 2025, above current annual investment levels of US\$10-19 billion (AfDB, 2016^[17]) (AfDB, 2018^[18]). If we compare with the situation in Europe, current annual average expenditures on water supply and sanitation are estimated at a total of EUR 100 billion across EU member states, with large variations across countries. On a country level, all member states (except Germany) will need to increase annual expenditures for water supply and sanitation by more than 25% in order to reach and maintain compliance with selected European water directives³. For several countries in Asia (except China), the annual investment gap to achieve SDG 6 is estimated at more than \$20 per capita (OECD, 2022^[3]).

1.2. The double challenge of investing in water in Africa

Investing in water in Africa is particularly complicated in two respects: i) investment risks on the continent are generally overestimated, especially in a challenging macroeconomic and financial context, despite a huge potential and progresses that have been made over the last years; ii) investments in water are

³ The Drinking Water Directive, the Urban Wastewater Treatment Directive and the Floods Directive.

perceived as riskier and less attractive than in other sectors, due to their inherent characteristics and complexity.

1.2.1. Despite progresses and the potential of the continent, the complex macroeconomic context and biased investment perception limit investment opportunities

African economies hold unique assets to close the continent's sustainable financing gap (AUC/OECD, 2023^[19]). Real GDP growth is projected to rebound to 4 percent in 2023, higher than the estimated 3.8 percent in 2022, and consolidate at 4.3 percent in 2024. Projections show that 18 African countries will experience growth rates surpassing 5 percent in 2023, a number expected to increase to 22 in 2024 (AfDB, 2023^[20]). Growth rate was the second highest in the world after developing Asia (5%) and above Latin America and the Caribbean (1.6%). The growth was estimated at 4.9% in East Africa, 4.3% in Central Africa, 4% in North Africa, 3.8% in West Africa and 1.4% in Southern Africa. Moreover, Africa has the world's youngest population, its natural resources represent a key asset, including for the world transition to net zero, and domestic financial resources remain a large potential for sustainable development. Domestic government revenues amounted to USD 466 billion in 2021, equivalent to 17% of GDP. Assets held by African institutional investors amounted to USD 1.8 trillion in 2020, equivalent to 73% of GDP. During the COVID-19 pandemic in 2020-21, intra-African foreign direct investment was three times more resilient than foreign direct investment from outside the continent (AUC/OECD, 2023^[19]).

Despite this potential, the challenging macroeconomic and financial context in Africa has reduced the capacity of African countries to invest in crucial sectors, including water and sanitation. Global economic uncertainties have had a significant impact on African economies, including increased difficulty in accessing financial markets, burgeoning public debts, inflation, and liquidity issues. As of 2022, Sub-Saharan Africa's average public debt ratio had reached 56% of GDP, a level not seen since the early 2000s. This surge in debt, especially in commercial debt which accounts for 43% of total debt, compared with 17% in 2000 (Adesina, 2023^[21]), has raised concerns about debt sustainability, with 19 out of the 35 low-income countries in the region already in debt distress or facing a high risk of such distress in 2022 (IMF, 2023^[22]). The cost of debt service for African economies increased from 3% to over 5% of gross national income over the 2010-20 period. In addition, African countries with low credit ratings continue to be excluded from international capital markets, preventing debt refinancing (AUC/OECD, 2023^[19]). Financial markets have become more expensive and more difficult to access since 2020 for African countries (Douet, 2023^[23]). Specifically, the spread on an average African Eurobond⁴ across 20 countries reached a 15-year high in September 2022⁵. Moreover, the median inflation rate reached approximately 10% in February 2023, more than double the rate observed at the onset of the pandemic (IMF, 2023^[22]). The devaluation of countries' currencies has exacerbated the issue (particularly due to their heavy dependence on imported goods). Devaluation also automatically increases the value of public debt in hard currency, with around 40% of Sub-Saharan Africa's debt coming from external lenders in 2021 (IMF, 2023^[22]). Infrastructure projects, including for water, often generate revenue in the local currency, while financing is usually denominated in hard currencies. This mismatch can imply a currency risk for water projects (OECD, 2019^[6]). To top it all, ODA to Africa decreased over the past years. Preliminary data for 2022 show that net bilateral ODA flows from DAC countries to Africa have decreased by 7% in real terms compared to 2021. Within this total, net ODA to Sub-Saharan Africa has decreased by 8% in real terms compared to 2021 (OECD, 2023^[24]).

⁴ a measure for the potential cost of borrowing on capital markets.

⁵ of about 10 percentage points, eclipsing previous peaks of the COVID-19 crisis in 2020 and the global financial crisis in 2008 (Smith, 2022^[65]). Between April 2022 and April 2023, no African country has been able to issue new Eurobonds (IMF, 2023^[22]).

While infrastructure default rates in Africa rank among the lowest globally, the region continues to attract less private finance for infrastructure investments, partly due to overstated perceived risks (OECD, 2023^[25]). Africa experienced a 5% default rate on infrastructure project finance debt, lower than Asia (6%) and Latin America (10%). Meanwhile, risk perceptions and information shortages have impacted investor confidence and elevated the cost of capital in Africa to levels exceeding those in other parts of the world. A survey of investors conducted for AUC/OECD Africa's Development Dynamics report confirm that the lack of information and data limits assessments of investment opportunities in African markets. For instance, Africa garners the smallest share of capital from institutional investors. Global pension funds and insurance companies directed 0.5% of their capital toward African assets in 2017-18 (AUC/OECD, 2023^[19]). The poor credit ratings of many African countries may overestimate risks and result in excessive cost of capital. A recent UNDP study comparing model-based ratings considered "neutral"⁶ with those issued by credit rating agencies, estimated that the latter hindered investment mobilisation. According to the UNDP, if credit ratings were based more closely on economic fundamentals and less on subjective assessments, African countries could access an additional USD 74.5 billion (UNDP, 2023^[26]). Country credit ratings also serve as a reference point for private debt holders, thereby influencing the cost of private capital. This dynamic has been a barrier to mobilising investment particularly in sectors where large upfront capital expenditures are required, such as water-related investments (AUC/OECD, 2023^[19]). Not only is there a **bias on credit ratings, but countries in Africa also face higher interest rate spreads compared to countries** in other regions **with similar credit ratings**. Even if African countries have the same credit rating as countries in other regions, they may still have to pay a higher interest rate on their debt, which hinder their economic development. SSA countries pay considerably higher coupon at issuance compared to their peers from other regions, even after controlling for rating and for bond characteristics (Gbohoui, Ouedraogo and Some, 2023^[27]). The unequal transposition of the ratings in the estimated risk premiums has a huge impact on African economies. **As the spread affects the cost of capital (equity and debt), if the spread is reduced, the expected WACC⁷ falls and, with the same tariffs, the country can make significant savings and carry out more bankable water projects.**

1.2.2. Investment attributes in water are further limiting investments

Despite the strong socio-economic cases, described earlier in the paper, **inherent features of water-related investments, exacerbated by the aforementioned economy-wide risks, pose challenges to (private) investment, particularly in the African context**. Due to the sector's inherent complexity and distinct characteristics, investors might perceive water-related investments as riskier and generally less attractive than other sectors (Streeter, 2017^[28]) (OECD, 2010^[29]).

First, water-related investments generate a mix of public and private benefits both from valued goods and services and from reduced water-related risks, now and in the future. Water is often defined as a public good, due to the public good dimension of a number of benefits delivered by such services (with flood control offering a good example), as well as due to its monopolistic market structure (OECD, 2022^[3]). Indeed, as explained above, investments in water services and water resources improve the well-being of people and the resilience of ecosystems and economies. Access to safe drinking water and sanitation was declared a 'human right' by the UN in 2010 (United Nations, 2010^[30]). As a human right, water cannot be treated the same way as other marketable goods. Consequently, water requires strong public regulation and public support to guarantee optimal investment levels, access and affordability at least for basic services. Nevertheless, there are successful examples internationally of private participation (as described

⁶ Credit rating agencies frequently employ methodologies that extend beyond the scope of macroeconomic and public finance fundamentals, especially when assessing emerging and developing economies. In the UNDP report, the Trading Economics (TE) algorithm is considered as neutral as it is based on a forwards-looking macroeconomic model (UNDP, 2023^[26]).

⁷ The weighted average cost of capital (WACC) is a financial metric that represents the average cost of the sources of financing a company or project, considering both equity and debt.

later in the paper), albeit with strong regulation. **Second, most of the benefits of water-related investments are not easily quantified and monetised** (OECD, 2016^[31]). This makes it difficult to translate these benefits into revenue flows, particularly for avoided costs or cross-sectoral benefits (OECD, 2018^[32]). **Third, water infrastructure is typically capital intensive, with a dissuasive long projects' development period and high upfront development budgets.** This calls for a high initial investment, including risky projects development resources, followed by a long pay-back period (of about 20 to 30 years), while investors are generally seeking quicker returns. These three common features pose a real challenge for governments in terms of tariffs, subsidies, taxes and allocations of transfers, while taking into account the need to attract more private capital.

Despite these common characteristics, **each water sub-sector has distinct investment attributes.** They have different risk-return profile and a distinct maturity in terms of history of access to finance. Approaches to facilitating finance differ from sub-sectors. As an illustration, a summary of investment attributes across three water subsectors (Water and Sanitation Utilities, Off-grid sanitation, Multipurpose water infrastructure (MPWI) projects and Landscape-based Approaches) is available in Annex B.

To mitigate barriers related to the risk-return profile and project attributes of water-related investments, a variety of financing instruments and mechanisms are already being applied for water. The WSS sub-sector is one of the most mature in terms of access to non-concessional finance globally (through multiple channels, including domestic commercial debt and equity, and public-private partnership models). Nonetheless, there is significant untapped potential (particularly for private finance) in other subsectors such as unconventional water source development, water storage, catchment management, urban stormwater management, flood risk insurance, and irrigation efficiency programmes (World Bank, 2023^[33]). Research conducted by the OECD reveals varied blending⁸ experiences with different instruments (credit lines, guarantees, grants, etc.) and contexts (urban and rural; large and smaller operators). They also reveal that blending can happen at multiple entry points in the financing chain, such as upstream at the level of the lender or utility (technical assistance, loans, credit lines, guarantees), or downstream to customers (such as access to microfinance loans) (OECD, 2019^[6]). As an illustration, annex C presents a list of **cases where various sources of funding have been mobilised for water-related investments in Africa**, including through the use of innovative financing mechanisms.

⁸ Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries (OECD, 2018^[58]). "Additional finance" refers to commercial finance, i.e. finance by investors who operate following a commercial and for-profit. These investors can be private but also public, if publicly owned enterprises are subject to the profit-making logic as private companies (DAC, 2023^[60]).

Chapter 2. Main sources of funding and financing for water in Africa: State of play

The main sources of funding (the “3Ts”: tariffs, taxes and transfers) and financing for water are not currently used to their full potential and in the most efficient ways in the continent. Tariffs are far from recovering the costs of water services. There is significant scope for improving the mobilisation and the use of taxes for water, including through pollution and resource taxes. Transfers tend to be biased towards certain types of water sub-sectors or projects, to be concentrated on a limited number of countries and to fail to reach people that need them most. In addition, provided certain conditions are met, there is potential for making a more effective use of public-private partnerships (PPPs) for water.

Box 1. Methodology used for data analysis

The analysis on ODA flows and mobilised private finance uses data from the OECD Credit Reporting System (CRS) Database.

Database

The CRS Aid Activity database includes data on ODA, and other official flows to developing countries. The objective of the database is to provide a set of readily available basic data that enables analysis on where aid goes, what purposes it serves and what policies it aims to implement, on a comparable basis for all DAC members. Data are collected on individual projects and programmes. In particular, the CRS aid activity database has become the internationally recognised source of data on the geographical and sectoral breakdown of aid and is widely used by governments, organisations and researchers active in the field of development. For DAC members the CRS serves as a tool for monitoring specific policy issues, supplementing the information collected at the aggregate level in the annual DAC Statistics.

Limitations

Data are collected on individual projects and programmes reported to the OECD by countries and organisations. The database is therefore dependent on the information being disclosed, which means that coverage is not complete. This limitation is more important in the case of mobilised private finance, as it is also necessary to assess a causal link between an official intervention and the mobilisation of private flows. Consequently, data on private mobilisation shows volatile results as specific projects can significantly drive the figures. It is not possible to distinguish when the information is missing or the flow is equal to zero, so when there is no value given, it is considered null. The 2021 data on mobilised flows is preliminary as reporting from major actors in the area are pending so it is not included in the analysis. Lastly, methodological work is ongoing on the measurement of amounts mobilised through technical assistance and capacity building activities.

Source: Authors

2.1. Public budgets for water are not fully spent, tariffs are far below cost recovery levels and taxes could be implemented more effectively

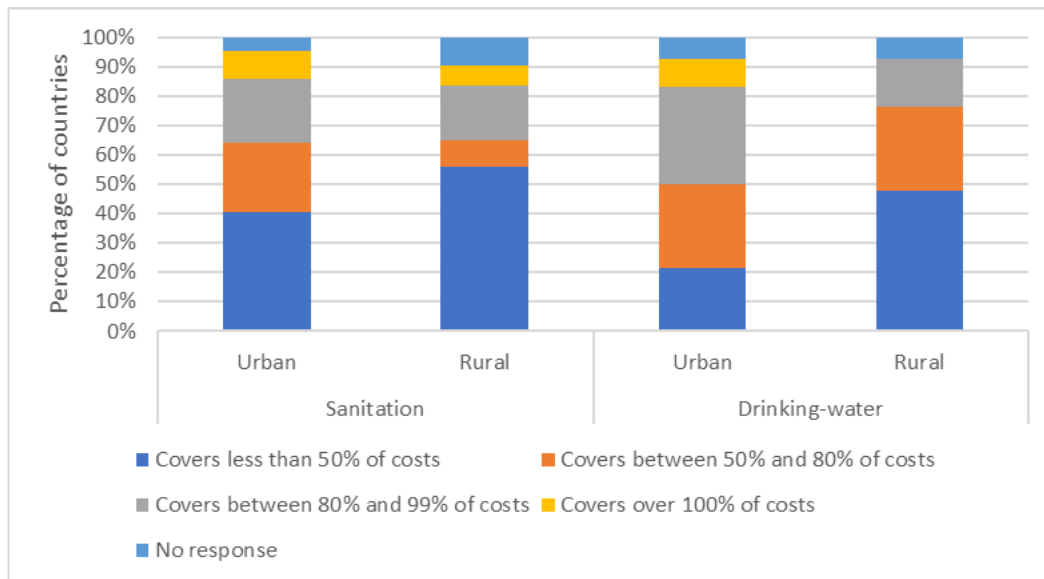
Water accounts for a limited proportion of public budgets in Africa, and budgets allocated to water are not fully spent. National budgets of African governments for water have fallen from USD 6.1 billion in 2016 to USD 4.3 billion in 2020, representing a drop from 20% to 13% of their total budgets. Of the countries that pledged to invest 0.5% of their GDP in sanitation at the Ngor commitments⁹ in 2015, only four have achieved this target. Many African countries have shown rising political interest in water and sanitation, but this has not translated yet in real increases in public budgets. Furthermore, water is generally well integrated into national development plans, but **national water investment plans and strategies remain underdeveloped and poorly implemented** (African Union, 2023^[5]). 97% of African countries who reported to GLAAS in 2018 addressed sanitation and drinking water in their national development plan. Meanwhile, only 23% of them had fully implemented their plan in 2021 (WHO, 2022^[7]). The issue of implementation capacity is one of the factors that lead to budgets allocated to water to be underspent. Limited budget allocations and implementation capacity for water result in weak institutional mandates (African Union, 2023^[5]). Finally, when they are used, existing public funds dedicated to water are not always efficiently used, hence inhibiting operational and financial performance, and failing, sometimes, to deliver water services to the most vulnerable populations (World Bank, 2023^[33]).

While cost recovery rates differ within countries, from rural to urban settings and by sub-sector, tariffs for water services applied in Africa are far below cost recovery levels. Less than half of African countries¹⁰ can cover more than 80% of their operating and maintenance (O&M) costs for WASH services through tariffs. As evidenced in Figure 2.1., cost recovery levels are lower in rural than urban settings. They are also lower for sanitation than drinking-water services (WHO, 2021^[8]). For example, South Africa reported that the larger the city, the more operating and maintenance costs are covered by tariffs, and that tariffs in smaller and poorer municipalities do not reflect costs and the WASH service operates at a loss (WHO, 2022^[34]). The impacts of cost recovery on affordability when it comes to tariffs on low-income households and informal settlements across Africa should be considered. For example, case studies in South Africa have cited negative impacts on poor settlements given the growing expectations around cost recovery for municipal water services. As explained in Chapter 3, ex-ante assessments on the affordability of higher water tariffs, in particular concerning vulnerable households, and the implementation of accompanying measures can be efficient to mitigate affordability-related issues.

⁹ The Ngor Declaration on Sanitation and Hygiene was adopted by the African Ministers responsible for sanitation and hygiene in 2015. With the aim of achieving universal access to sanitation and hygiene services and eliminate open defecation by 2030, several commitments were established, including the requirement for countries to allocate 0.5% of their GDP to sanitation and hygiene by 2020.

¹⁰ 47 countries reported information over the 54 African countries.

Figure 2.1. Cost recovery levels (via tariffs) for sanitation and drinking water in Africa (2021)



Note: the total number of countries surveyed is 47. The costs refer to operations and maintenance costs.

Source: Authors, based on GLAAS 2021/2022 country survey (WHO, 2022^[7]) <https://glaas.who.int/glaas/visualizations>

While WSS tariffs are far below cost recovery levels, water subsidies in place are not designed with enough accuracy, not targeted and lack effectiveness. Indeed, evidence proves that subsidies tend to benefit the highest-income households first and foremost, while the proportion of subsidies that reach the poorest is minimal. (Abramovsky et al., 2020^[35]) (Poulin et al., 2022^[36]). This is predominantly due to the fact that water subsidies generally benefit households that are already connected to the network, while the most vulnerable segments of the population face challenges in access and connection to piped water services - as the affordability of the initial connection costs can be a major constraint (Blended finance taskforce, 2022^[37]).

Finally, the use of public budgets for water in Africa, varying significantly from one country to another, could be improved. Although data on taxes in Africa are limited, an estimation from UNICEF (UNICEF, 2019^[38]) indicate the following: in 2017 out of an estimated investment of US\$ 13.1 billion in the water sector across Africa, state financing through taxes accounted for 45%. This percentage vary significantly from one country to another. For instance, in Burundi, donor financing made up around 57% of the overall spending in the WASH sector in 2017, while government taxes contributed only 12%, and tariffs covered 31% of the funding. In contrast, in Uganda, donor finance constituted an estimated 30% of the overall WASH sector spending, with the government own resources contributing 22%, and user tariffs and household contributions covering 48% of the funding. Eswatini's water resource management sector received an average of 51% of its investment from foreign loans between 2015 and 2020. The government's own contribution to the water sector, primarily through taxes, accounted for 43%, while foreign grants made up just 5% of the allocations (UNICEF, 2019^[38]). **There is significant scope to improve the mobilisation and the use of taxes for water in Africa, including through pollution and resource taxes.**

2.2. ODA flows alone will not close the financing gap for water in Africa

Development finance has played and is playing a key role for financing water and in the achievement of SDG6 in Africa, and it will continue in the future. In this subsection, the critical role played by development finance in Africa is acknowledged, but the focus is on key limitations and evidence that there is significant scope for improvement in the way ODA is used for water, and for policy reforms, to accelerate the achievement of SDG6 by 2030.

2.2.1. Water-related ODA¹¹ for Africa is decreasing since 2018

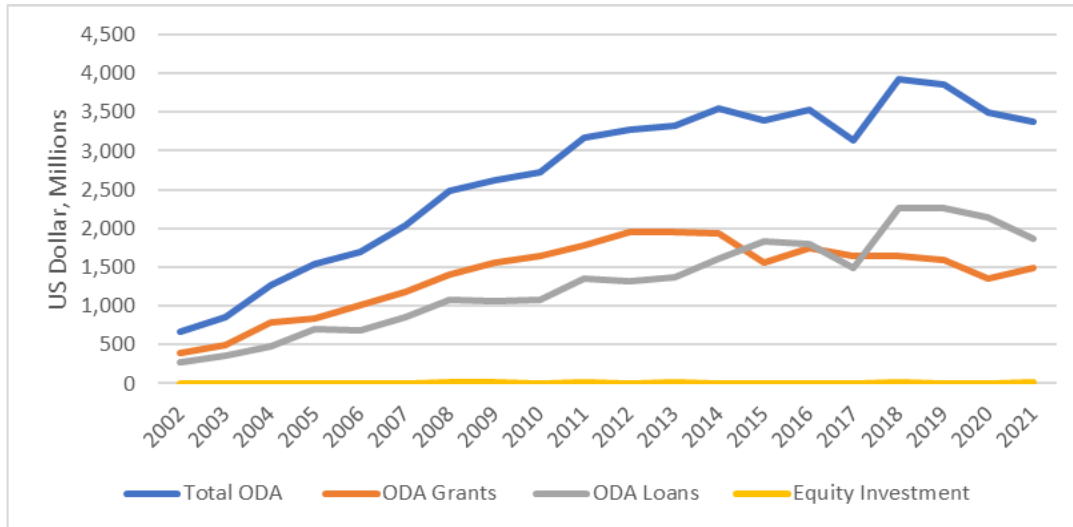
The decline in ODA to Africa significantly affects water-related investments, particularly since 2018. ODA gross disbursements for water in Africa increased significantly between 2002 and 2018, as shown in Figure 2.2. They peaked in 2018, when total ODA towards water reached USD 3.9 billion, more than five times the flow recorded in 2002. This trend reversed after 2018, with a decrease to USD 3.4 billion in 2021 (OECD, 2022^[39])¹².

The nature of ODA is changing. ODA loans exceeded ODA grants in 2018, while ODA equity investments remained relatively marginal. ODA grants increased until 2012, after which they stagnated, except for two significant declines in 2015 and 2020. At the same time, ODA loans increased relatively in 2018, constituting the main type of flow since then. In 2021, ODA loans accounted for USD 1,875 million, while USD 1,499 million was disbursed in the form of ODA grants. They represented respectively 55% and 44% of total ODA. ODA equity investments accounted for USD 11 million in the same year, or 0.3% of total flows. **The increase in the share of ODA loans poses a problem: although they are concessional, they have to be repaid and hence, they add to the debt burden faced by many African countries.** Broadly, this raises questions about the role of development finance, including ODA, and particularly the need to reconcile the seemingly contradictory objectives of responding to countries' financing needs generated by successive crises in the short term while ensuring countries' debt sustainability in the longer term (OECD, 2022^[39]).

¹¹ ODA flows include gross disbursements for WSS, hydro-electric power plans and agricultural water resources.

¹² The analysis on ODA flows and mobilised private finance uses data from the OECD Credit Reporting System Database. Data are collected on individual projects and programmes reported to the OECD by countries and organisations. The database is therefore dependent on the information being disclosed, which means that coverage is not complete. This limitation is more important in the case of mobilised private finance, as it is also necessary to assess a causal link between an official intervention and the mobilisation of private flows. Consequently, data on private mobilisation shows volatile results as specific projects can significantly drive the figures. It is not possible to distinguish when the information is missing or the flow is equal to zero, so when there is no value given, it is considered null. The 2021 data on mobilised flows is preliminary as reporting from major actors in the area are pending so it is not included in the analysis. Lastly, methodological work is ongoing on the measurement of amounts mobilised through technical assistance and capacity building activities.

Figure 2.2. Evolution of water-related ODA in Africa by type of instrument



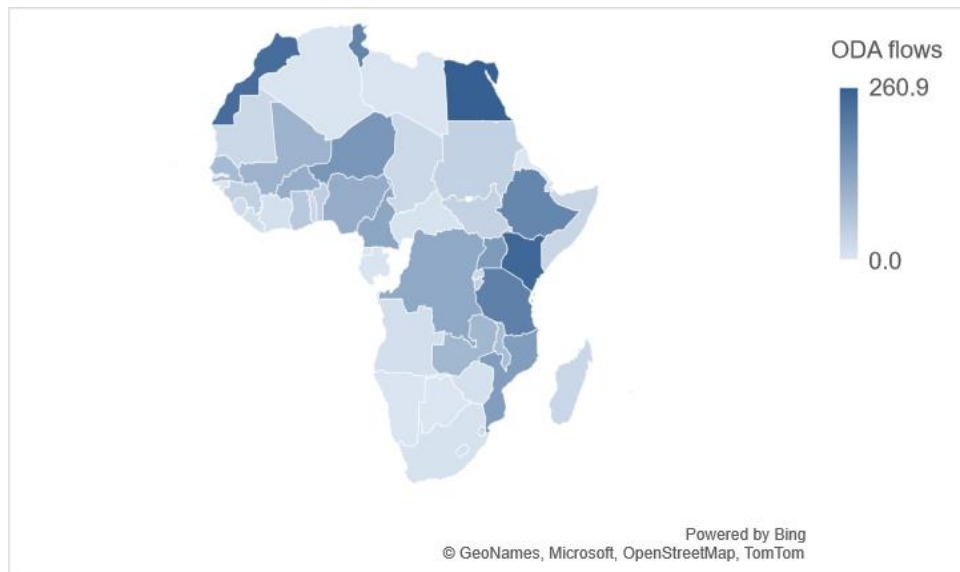
Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.2.2. Water-related ODA is unevenly distributed across countries, hardly reaching the poorest countries

The analysis of ODA flows towards water reveals major disparities between geographical regions and countries. ODA flows for water in 2021 mostly targeted Asia and Africa. Africa was the second beneficiary continent after Asia, with USD 3,384 million (while Asia received USD 3,483 million. Europe, America, and Oceania received significantly lower amounts (USD 276 million, USD 599 million and USD 84 million respectively) (OECD, 2023^[15]). Eastern Africa was the first recipient of ODA for water in 2021 (USD 1,338 million), followed by Western Africa (USD 834 million), North of Sahara (USD 691 million), Middle Africa (USD 317 million) and Southern Africa (USD 59,4 million).

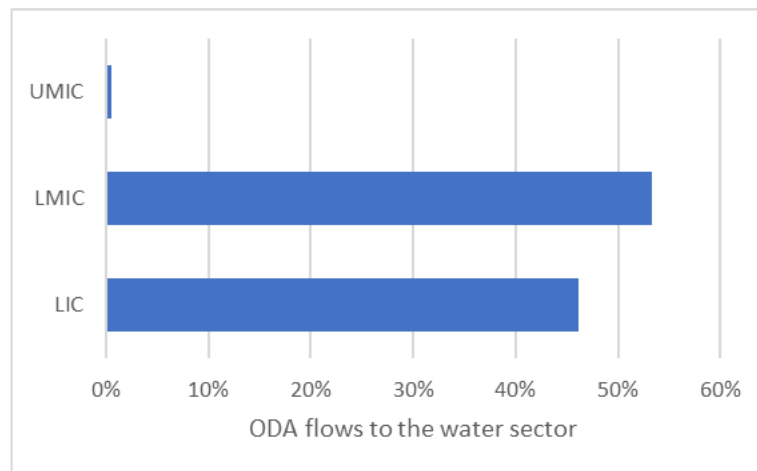
ODA for water is concentrated on a limited number of African countries and fails to reach the countries that need it most. The top three recipients of ODA for water for the continent (54 countries) in 2021, Egypt, Kenya and Morocco, accounted for 23% of the total. The top 10 recipient countries received more than 50% of the total. Only four of the top ten countries are low-income economies, while the rest are lower-middle income countries. In addition, the top five African recipient countries belong to the lower-middle income group, while the efforts made by low-income countries to achieve SDG 6 are greater than those of other income groups. Indeed, the total annual cost of investment in safely managed water, sanitation and hygiene represents 15% of GDP for low-income countries, 3% for lower-middle-income countries and 1% for upper-middle-income countries (WaterAid, 2023^[40]). These data show that ODA is hardly reaching countries that face higher costs (relative to their GDP) to guarantee their population's access to water services.

Figure 2.3. Geographical distribution of ODA flows towards water investments in 2021



Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

Figure 2.4. Distribution of ODA for water by income group (2021)

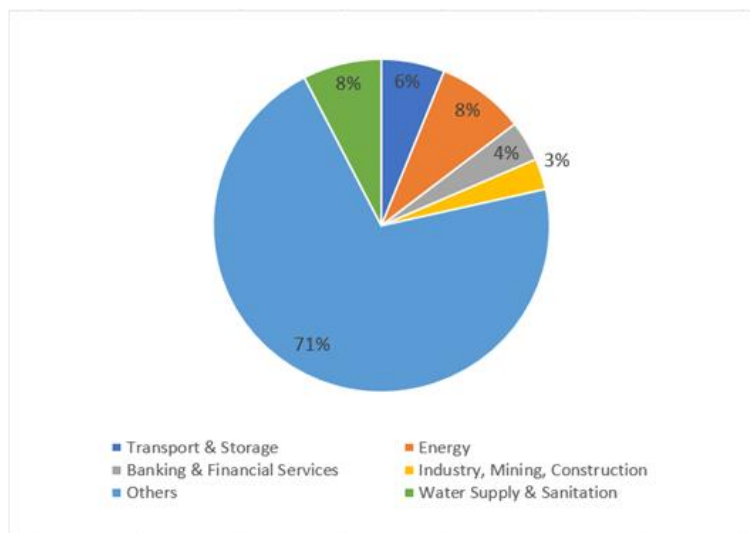


Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.2.3. Water Supply and Sanitation represents only 8% of total ODA to Africa and water-related ODA mostly supports large water supply and sanitation systems, to the detriment of other water sub-sectors

Despite being at the heart of socio-economic development and the massive financial needs, water supply and sanitation represented on average only 8% of total ODA to Africa between 2012 and 2020 (Figure 2.5.).

Figure 2.5. ODA by sector in Africa (average 2012 – 2020)



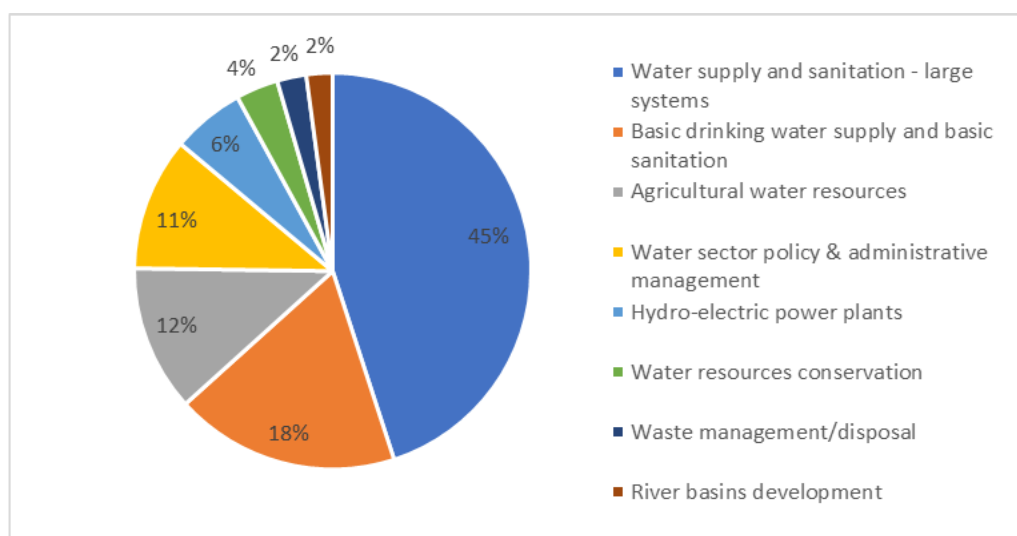
Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

Furthermore, large water supply and sanitation systems¹³ account for the bulk of ODA flows in Africa, to the detriment of other sub-sectors. This sub-sector accounted for 45% of total flows for water, with an amount of USD 1,516 million in 2021 (Figure 2.6.). It was followed by basic drinking water supply and sanitation¹⁴, which received 18% of total ODA (USD 617 million). ODA for agricultural water accounted for 12% of total water flows (USD 401 million in total value), while water sector policy & administrative management accounted for 11% of ODA (USD 366 million in total value). ODA flows for hydropower plants, water resource conservation, waste management and waste disposal represent relatively small shares compared to other water-related sub-sectors. Small-scale water supply systems – defined as supplies that serve up to 5000 people or supply less than 1000 m³ water per day - receive little ODA support due to their inherently limited economies of scale, significant fragmentation leading to disproportionate transaction costs for small projects for ODA providers and lower political and financial priority compared to larger utility systems. Greater attention to small-scale systems is likely to be necessary to achieve SDG 6, especially for unserved populations in rural areas (WHO, 2020^[41]).

¹³ Large water supply systems include potable water treatment plants, intake works, storage, water supply pumping stations and large-scale transmission and distribution systems. Large sanitation systems account for large scale sewerage including trunk sewers and sewage pumping stations, domestic and industrial wastewater treatment plants (OECD, 2023^[15]).

¹⁴ Basic drinking water supply covers rural water supply schemes using handpumps, spring catchments, gravity-fed systems, rainwater collection and fog harvesting, storage tanks and small distribution systems typically with shared connections. It also comprises urban schemes using handpumps and local neighbourhood networks. Basic sanitation account for latrines, on-site disposal, and alternative sanitation systems, including the promotion of household and community investments in the construction of these facilities (OECD, 2023^[15]).

Figure 2.6. Allocation of ODA flows by water sub-sector in 2021 (%)



Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.3. The limited effectiveness of the public sector in mobilising private finance¹⁵

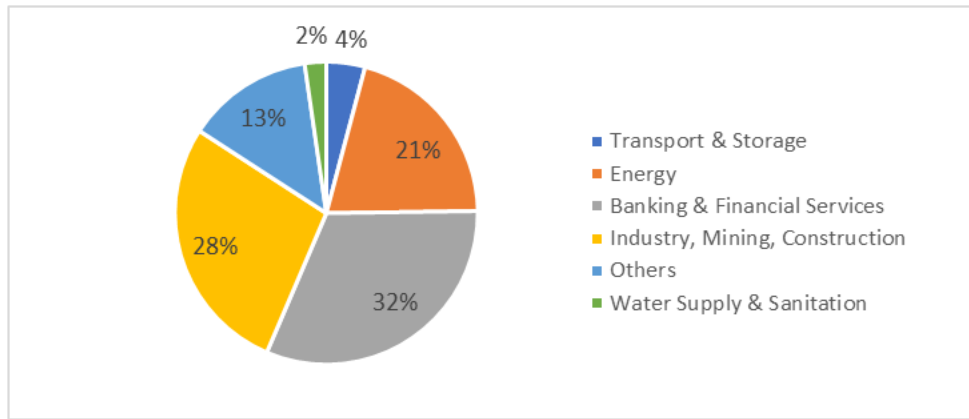
2.3.1. Mobilised private finance for water supply and sanitation in Africa lags far behind other sectors

The water supply and sanitation lags far behind other capital-intensive sectors in terms of mobilised private finance. 32% of the total private finance mobilised¹⁶ by official interventions was directed towards banking and financial services over the period 2012-2020. Together with industry, mining and construction (which received 28% of the total) and energy (21%), these sectors accounted for 81% of private finance mobilised in Africa **over the period 2012-2020** while **water supply and sanitation accounted for just 2% of private finance on average** (Figure 2.7.).

¹⁵ The data on mobilised private finance come from the OECD Creditor Reporting System (OECD, 2023^[15]). The results must be put into perspective by the limited quantity of data reported officially.

¹⁶ The concept of mobilised private finance refers to private flows mobilised through official interventions – with a causal link between private finance made available for a specific project and the official intervention. The data on mobilisation of the CRS database is limited to water supply and sanitation (OECD, 2023^[15]). Blended finance is the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries (OECD, 2018^[58]). “Additional finance” refers to commercial finance, i.e. finance by investors who operate following a commercial and for-profit. These investors can be private but also public, if publicly owned enterprises are subject to the profit-making logic as private companies (DAC, 2023^[60]). In this paper, the concept of “mobilised private finance” is used interchangeably with the concept of blended finance, due to limited data availability. See Annex B and C for more information on mechanisms and instruments used for blended finance and mobilised private finance.

Figure 2.7. Private finance mobilised by official development finance interventions by sector in Africa (average 2012-2020)



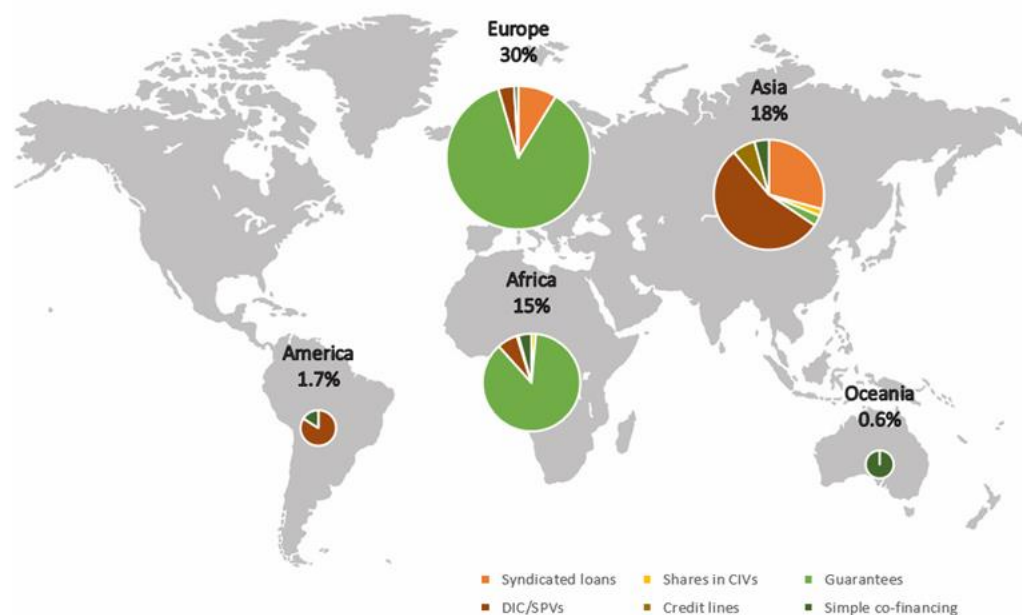
Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.3.2. Mobilised private finance for water in Africa is unevenly distributed among regions; guarantees mobilised the greatest share of private finance

In Africa, the share of mobilised private finance in total ODA for water represented on average 15%. It represented 30% in Europe and 18% in Asia. This confirms the lack of risk appetite of private investors to invest in water in Africa. Mobilised private finance in Africa for WSS represented USD 231 million from 2012 to 2020. It was mostly in the form of guarantees, with an average of USD 200 million over the same period. Asia benefited from 355 million of mobilised private flows, primarily through Direct Investment in Companies (DIC) and Special Purpose Vehicles (SPV)¹⁷. In Europe (USD 50 million), America (USD 7 million) and Oceania (USD 0.2 million), the main mechanisms used were guarantees, DIC/SPVs and simple co-financing respectively (OECD, 2023^[15]).

¹⁷ Definitions are provided in Annex A.

Figure 2.8. Share of mobilised private finance in total ODA by continent for water (average 2012-2020)



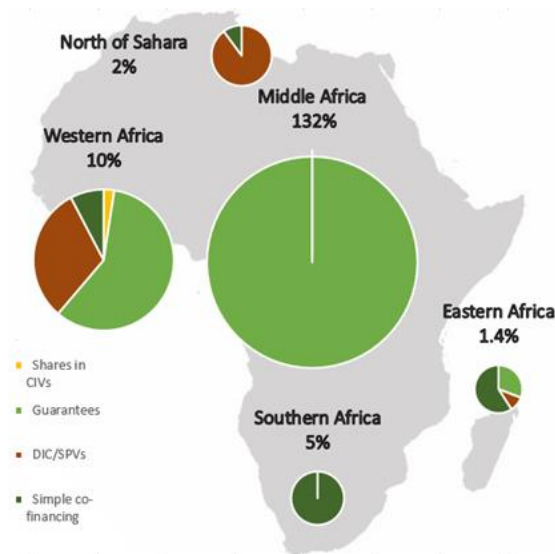
Note: DIC stands for Direct Investment in Companies and SPVs for project finance Special Purpose Vehicles. CIVs refers to Collective Investment Vehicles. Definitions are provided in Annex A.

Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

There are notable regional disparities across Africa, not only in the magnitude of mobilised private finance, but also in the mechanisms employed. As mentioned in box 1 on methodology, these wide disparities can be explained by the lack of data availability and reporting. As evidenced in figure 2.9, Middle Africa¹⁸ was the first beneficiary region of mobilised private finance for WSS (USD 177.9 million), followed by Western Africa (USD 33.9 million) and Eastern Africa (USD 8.1 million). The substantial funding in Middle Africa was largely attributed to Angola and mostly through guarantees. Guarantees were the Blended Finance instrument which mobilised a significant share of private finance in Western Africa (59%) and Eastern Africa (31%). Simple co-financing was used for all sub-regions except Middle Africa, accounting for 59% and 100% of total mobilisation in Eastern Africa and Southern Africa respectively. DIC and SPVs played a role in mobilising funds for water investments in Eastern Africa, Western Africa, and North of Sahara, with North of Sahara relying heavily on them (constituting 90% of total mobilisation). Shares in CIVs were only present in Western Africa, representing only 2% of total mobilised private finance.

¹⁸ Cameroon, Democratic Republic of the Congo, Chad, Congo, Angola, Central African Republic, Sao Tome and Principe, Gabon and Equatorial Guinea are part of Middle Africa in the CRS data set.

Figure 2.9. Share of mobilised private finance in total ODA for water in Africa by subregion (average 2012-2020)



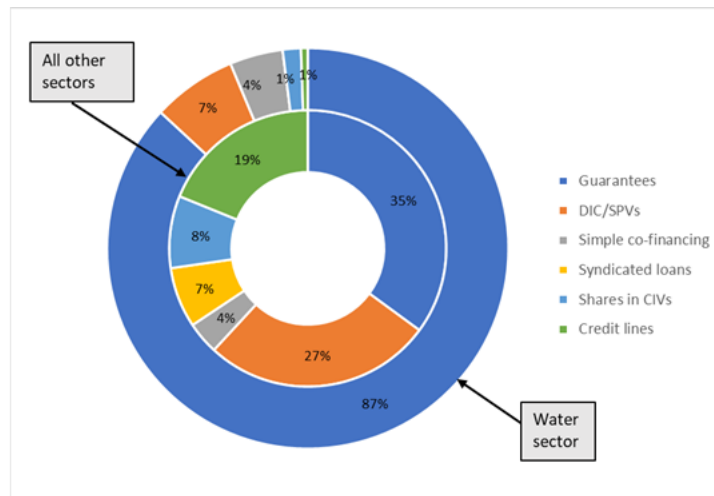
Note: the comparative importance of Middle Africa is driven by Angola, where extraordinarily high sums were mobilised in 2013 and 2019 (679.5 USD million and 919 USD million respectively).

Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

Guarantees are most frequently used to mobilise private finance for water supply and sanitation compared to other sectors in Africa. In 2012-2020, guarantees accounted for 87% of mobilised funds in the WSS sector, while they represented 35% of mobilisation for all the sectors. Guarantees are the most used credit enhancement instrument among the blended finance mechanisms used for water and sanitation, as they can lower both the political and commercial risk of utilities' commitments (OECD, 2019^[6]). It is expected that guarantees are more present in Africa compared to other regions and in water as they present higher and more diversified array of risks to ensure against. However, guarantee funds operating on a purely commercial model are very difficult to implement in fragile contexts, as they do not provide enough cushion for negative contextual developments. Structured guarantee funds, where donors and development finance institutions with higher risk tolerance play a pivotal role, are indispensable for mobilising commercial capital in challenging environments (Basile and Neunuebel, 2019^[42]). It is worth making the difference between guarantees that cover utilities' commitments or projects finance risks under a PPP scheme and those that cover Governments' obligations under public commercial loans. For the latter, **guarantees are helping governments to reduce the cost of debts and to increase their maturities but they are not a sustainable solution on the longer term due to debt sustainability issues of many African countries, considering that these debts are consolidated in the countries' liabilities and that the ultimate obligation to repay (to the guarantor in an event of default) remains at Government's level.**

DIC and SPVs were the second most used mechanisms to mobilise private finance for WSS in Africa (accounting for 7%), even though their share was lower compared to other sectors (27% of mobilised private finance for all sectors). They are mostly relevant for financing large infrastructure projects that require significant upfront investment (OECD, 2023^[25]). The amounts raised via simple co-financing, shares in CIVs, and credit lines were modest, accounting for 4%, 1%, and 1%, respectively (Figure 2.10.).

Figure 2.10. Mobilised flows by sector and mechanism (average 2012-2020)



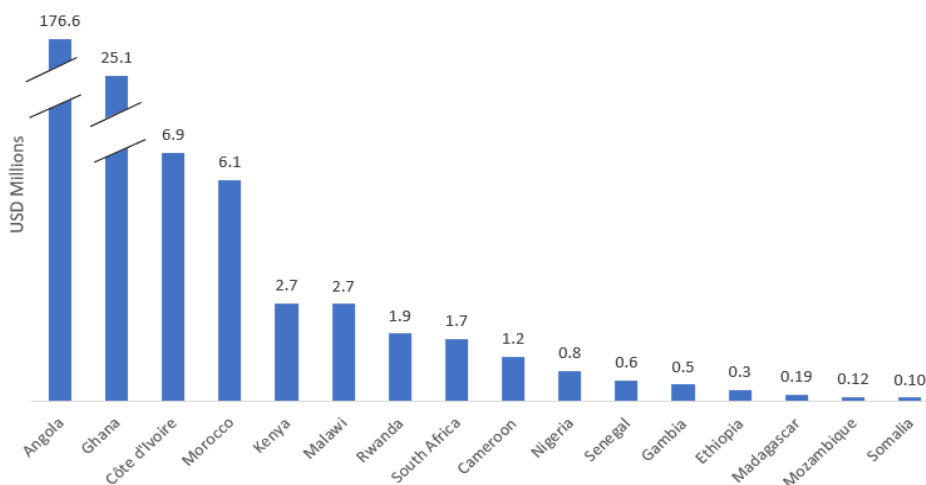
Note: the inner circle groups all other sectors except water and sanitation and the outer circle represents the water and sanitation sector separately. DIC stands for Direct Investment in Companies and SPVs for project finance Special Purpose Vehicles. CIVs refers to Collective Investment Vehicles. Definitions are provided in Annex A.

Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.3.3. Mobilised private finance for water is hardly reaching lower-income economies

The mobilisation of private flows for WSS is limited to a reduced number of African countries. Evidence shows that reported mobilised funds are largely concentrated in a few countries, among which Angola, Ghana, Côte d'Ivoire, and Morocco stood out. These four countries were the main beneficiaries of mobilised private finance in 2012-2020, exceeding USD 6 million each per year on average. On the contrary, countries such as Nigeria, Gambia, or Ethiopia received less than USD 1 million of mobilised private flows. In general, 94% of total mobilised private finance targeted the top 4 countries while the others benefited from only the 6% of the total mobilised amounts.

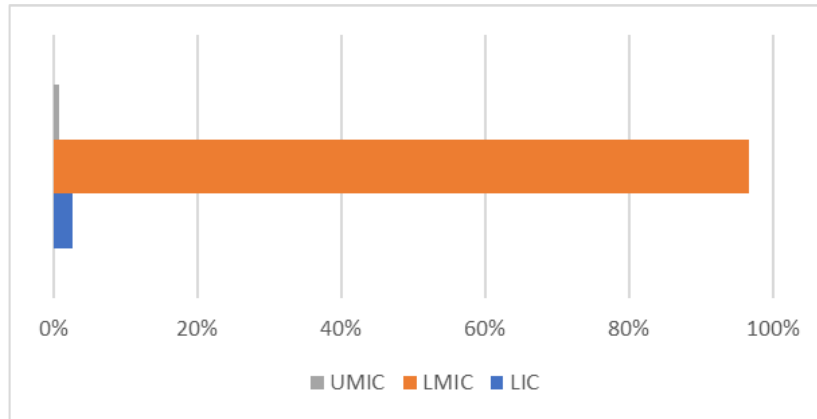
Figure 2.11. Distribution of mobilised private finance for water in Africa by country (average 2012-2020)



Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

Finally, a common feature of private finance mobilisation applies to water: most of it is targeting middle income countries (MICs), failing to reach the low-income countries (LICs). MICS received USD 222 million per year on average in 2012-2020, with USD 220 million for lower middle-income countries (LMICs) and USD 1.7 million for upper middle-income countries (UMICs). Meanwhile, LICs received USD 5.8 million over the same period. These figures imply that 96.7% of country-allocable mobilised private finance benefited LMICs and 0.8% UMICs, while LICs received 2.6% of mobilised private finance.

Figure 2.12. Distribution of mobilised private funds for water by income group (average 2012-2020)



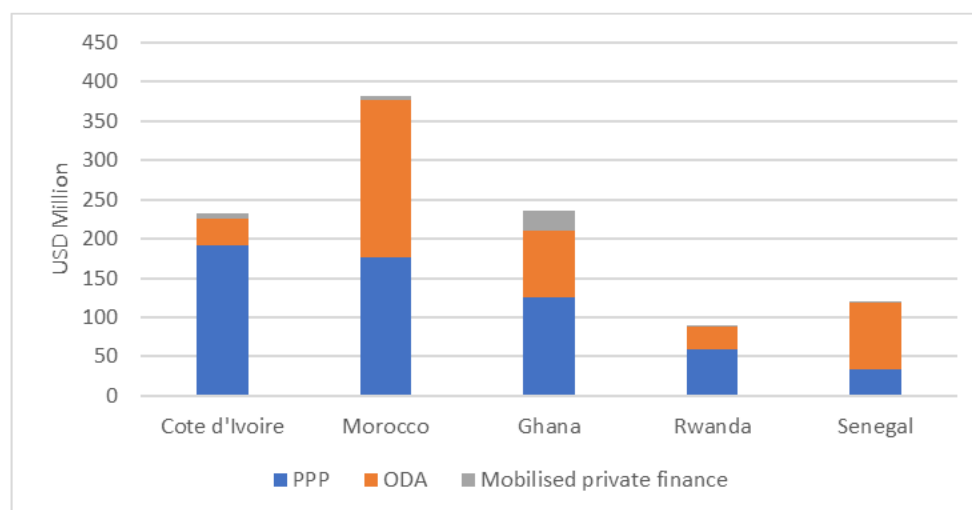
Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1>

2.4. The potential of public-private partnerships for water in Africa

Public-private partnerships already play an important role in financing water in Africa, and there is scope to scale them up if certain conditions are met. PPP differentiate themselves from private finance above described as they are structured as agreement between the government and one or more private partners (which may include operators and financiers) according to which the private partners deliver a service, with a sufficient transfer of risk to the private partners. As evidenced by a comparison between ODA, mobilised private finance and PPP for water in Africa (limited to 5 countries as data on PPP was not available for other countries) in figure 2.13., the amounts of private capital raised via PPP mechanisms are significant, of the same order of magnitude as the amounts of ODA, and much higher than the amounts of mobilised private finance. There is potential for scaling up PPP effectively in water, provided certain conditions are fulfilled. Some successful cases (see case studies in annex C) could pave the way for more PPPs in Africa. According to Rami Ghandour, Managing Director of Metito, a UAE-based water company with operations in Africa, the market is still “99% untapped”, presenting huge opportunities for international water companies. Current trends present similarities with the evolution of PPPs for the power sector, which was mainly led by government utilities two decades ago and then grew substantially to play a key role in closing the supply gap on electricity in Africa. **Yet, PPPs are not a silver bullet, and a number of conditions must be met to ensure they are beneficial.** Looking beyond financial transactions, the ultimate goal should be universal and affordable access to water and sanitation. As private entities seek to maximise returns, adequate preparation, governance mechanisms and regulation are essential to mitigate potential pitfalls (to prevent adverse outcomes, similar to challenges observed in England and Wales). The Global Commission on the Economics of Water (GCEW) supports the **development of new modalities for PPPs in water**, with the idea that the structure of finance (patient, mission-oriented finance) is as important as the quantity of finance. PPP models for water should be designed in such a way that **risks and benefits are shared in a balanced way between public and private actors, and that PPPs achieve good outcomes**, including reductions in water losses (non-revenue water - NRW), long-term

network resilience as well as equitable and affordable access. Adequate regulatory frameworks are key to provide the right incentives for operational efficiency and investment in the long-term resilience of the system and create long-term value for the public (GCEW, 2023^[13]). Output-based long-term PPP agreements (as discussed in Chapter 3) can also support such objectives.

Figure 2.13. PPP, ODA and mobilised private finance for water (average 2012-2020)



Note: Due to limited data availability, the data includes only: i) PPP for WSS; ODA for WSS, hydro-electric power plans and agricultural water resources; iii) mobilised private finance for WSS.

Source: Authors, based on OECD Creditor Reporting System (OECD, 2023^[15]) <https://stats.oecd.org/index.aspx?DataSetCode=CRS1> and the World Bank database on (World Bank, n.d.^[43]) <https://data.worldbank.org/indicator/IE.PPI.WATR.CD>

Examples of public-private partnerships for water in Africa include **concession arrangements** under which a government or municipality allows a private entity to operate the water infrastructure for a specified period. Under the responsibility of the service authority, the private-sector operator is in charge of providing the service, including operating and maintaining the infrastructure for the given period and is also responsible for asset replacement and network expansion. The private sector is then exposed to users' risk. For instance, in Benin, four eight-year PPP concession contracts for 10 piped water systems were implemented (with the support of the World Bank, the IFC and the Dutch cooperation fund), to give access to water to three rural municipalities. 48,500 people are expected to have improved access to drinking water, and domestic commercial banks are willing to finance commercial water operators (World Bank Group, 2018^[44]). Senegal is another example where concession agreements (initially with Société des Eaux, and now with Suez) have been used for the urban water supply sub-sector in Senegal since 1995. Although these concessions have been challenged on several occasions, progress has been made under this scheme: Dakar has water supply coverage of over 98%, a figure that is around 80% in the area under PPP management. Senegal was also, between 1990 and 2015, one of only three countries in Africa where the household connection rate has grown by over 25%, behind Botswana (+52%) and ahead of Morocco (+25%), rising by +33% (Pezon, 2018^[45]). Examples of public-private partnerships for water also include **Build Operate Transfer (BOT) arrangements and similar contractual arrangements (Design-Build-Operate, Build-Own-Operation, among others)** under which the public sector grants to the private entity the right to develop and operate a facility or system for a certain period, usually a greenfield project. Depending on the nature of the contract, the private company is either exposed to the users' risk or to the off-taker's risk (public utility, municipality, etc.). For instance, the Kigali Bulk Water Supply project in Rwanda is the first large scale water treatment facility financed through a PPP model in Sub-Saharan Africa (excluding South Africa). Metito consortium won the 27-year concession to build, operate, maintain,

and transfer the facility. The resulting infrastructure is expected to cover the 40% of Kigali's water supply needs (OECD, 2019^[6]). Another feature of some contractual arrangements is divestiture of ownership of the existing assets. Divestiture from existing water assets, especially in urban areas where the probability to have more bankable water projects is higher, can offer the public sector, in certain contexts and if certain conditions are met, an **asset recycling opportunity for water** whereby they receive upfront capital from the private sector instead of future income from those revenue-generating water assets. Then, the monetized proceeds, in certain contexts, can be used to invest in less bankable water assets, for example in rural areas or to de-risk potentially bankable water projects to further attract private capital into the sector, where appropriate.

Chapter 3. Diversifying sources of finance for water in Africa: ways forward

There is a wide range of options for making significant progress in financing water in Africa and achieving SDG 6 - and, by extension, all the SDGs - on the continent. Indeed, African governments seeking to increase and diversify their financial resources for water currently have a number of options, well beyond foreign aid. This chapter highlights a set of options to diversify and increase the sources of finance for water in Africa. The approach is to follow the life cycle of water projects. The concrete proposals therefore focus firstly on strengthening the investment framework for water policy in African countries. Then, the focus is on the conditions for providing financial institutions and investors with a solid pipeline of projects, each of which can be de-risked through various instruments included in the proposals. Finally, this chapter examines some sources of finance that go beyond traditional sources and the potential opportunities arising from the reform of the global financial architecture.

3.1. Strengthening the water policy investment framework

This section focuses on measures for more predictable revenues and efficient subsidies in water to attract more capital, and to ensure reliable and equitable access to water to all. They should be complemented with broader measures such as i) overall country risk mitigation, including the currency, political, and demand risks, ii) adequate project data, particularly risk disclosures for investors, iii) smooth and transparent processes for land and project permits from local authorities, iv) strong regulatory and PPP frameworks ensuring predictability of taxes, tariffs and return repatriation among others.

The implementation of cost-reflective tariffs and efficient cost recovery mechanisms are particularly constrained in Africa because of a misconception of how affordability constraints can be addressed and inefficient subsidies in place which benefit high-income groups and fail to reach the very poor (Abramovsky et al., 2020^[35]) (Andres et al., 2019^[46]) (Poulin et al., 2022^[36]). In addition, the predictability of tariff adjustments is sometimes uncertain, which can deter investment.

Low tariffs mostly benefit users who are connected, while depriving utilities from the revenue to extend coverage. Subsidising connection can be more effective than keeping tariffs low in some cases. **At least in certain urban environments, tariffs could be gradually increased to generate additional revenues**, either by increasing the final amount charged to consumers or by removing subsidies, **whereas affordability can be addressed through targeted social measures, on top of targeted and efficient subsidies**. In rural environments and informal settlements, setting up such measures may be more challenging. Ex-ante assessments regarding the affordability of higher water tariffs, in particular concerning vulnerable households, should be implemented. **Appropriate responses to affordability issues need to combine several dimensions** including: i) waiving or modulating access fees, which can be disproportionate with households' capacities to save or incur debt, ii) adjusting payment schedules to match households' liquidity or irregular income. In any case, responses to affordability issues are better delivered through targeted social measures than only through the water bill. The most appropriate responses vary according to national and local contexts. They usually combine a capacity to target

households most in need of support; low transaction costs, building on existing data and social programmes; and synergies with water conservation measures (Leflaive and Hjort, 2020^[47]).

Targeted subsidies and cross-subsidies through tariffs are important instruments to guarantee a reliable and affordable access to water for all, including in rural areas and informal settlements.

Ensuring that consumers who can afford it pay full tariffs and even an additional limited tax will allow generating enough resources to subsidise people in rural areas and in the informal urban sector and to finance the investments needed to connect them to the grid or to provide them with decentralised solutions at an affordable price. The Cote d'Ivoire model is a good example to build on. The Water Development Fund (FDE), funded from a surtax paid by the customers in large cities, provides capital to the national utility, SODECI, for the financing of subsidised connections.

On top of targeting subsidies, tracking their use and their impacts can allow governments to ensure they are efficient. **An option for governments is to establish water subsidies accounts to centralise subsidies for the sector.** The water subsidies accounts should be sized based on the forecasted needs leveraging on existing data as abovementioned and disburse accordingly. On top of annual government's contribution, the subsidies account can be complemented by donors and other sources of finance. Water taxes/fees from water intensive consumption industries, when applied, could also complement the accounts. These accounts can be predictable and annually replenished. The accounts would be used for targeted and efficient subsidies and could operate as a Partial Risk Guarantee (PRG) that could complement or be junior to the PRG that a MDB could bring on a transaction; in this scenario they would be used to fill the revenue gap in a PPP project.

In parallel, **output-based long-term PPP agreements** could be further developed for water. This would reduce the burden on developers to recover all costs through just connection and tariff costs, while incentivising them to provide good output. In this case, PPP developers can receive subsidy funds in addition to tariffs revenues, which can be financed by an IFI and are based on a predefined output (such as the delivery of working connections demonstrated through a paid water bill, a proportion of the customer's water bill or the volume of wastewater treated in the case of wastewater) (AfDB, 2018^[18]).

Economic instruments and policies to incorporate the cost of water into the energy and agriculture sectors as well as into other water-intensive sectors at the national level are opportunities to leverage finance for water. As previously mentioned, water-intensive industries could, for instance, contribute to water subsidy accounts implemented by governments through water taxes or fees. In addition, **developing multipurpose projects integrating several water components has proven to be effective mobilising finance for water**, particularly in rivers shared by multiple countries, encompassing purposes such as food production (irrigation), energy generation (hydropower), and water use (water treatment systems). This was the case for instance on the Senegal river with OMVS, the Gambia River with OMVG and the Nile River.

3.2. Building well-prepared and investment-ready water projects

The development of well-prepared, investment-ready water projects is a prerequisite for increasing (private) investment in the water sector. It is needed in order to provide the market and financial partners with visibility on a solid pipeline of projects that can be de-risked using various instruments but also for scaling up the share of lower income countries in water-related ODA. This includes: i) developing structured long-term macro/country-wide water plans (including through establishing strong and credible water project facilitation units) to provide visibility to investors and incentivise them to make long-term pledges and provide appropriate financing instruments; as well as ii) supporting project preparation and development at project level, including through the creation of water project preparation and development funds. While project preparation and development funds would focus on the project level, water project facilitation units would work at the country level.

Such investment plans will not only enable to build pipelines of bankable water projects but will also help tackle the issue of providing equitable and effective water and sanitation services to poorest communities in some countries, especially in informal settlements. Indeed, these communities often lack formal infrastructure, have limited access to resources, and face complex social and economic realities. On top of identifying, structuring and executing bankable water and sanitation projects for richer areas, long-term macro/country-wide water plans need to tackle this issue with a holistic approach that takes the context into account and offer sustainable and affordable solutions, including consider appropriate technologies (affordability, ease of maintenance, resilience to climate, etc.), allow for decentralised systems while the grid is being extended, encourage flexible payment mechanisms, such as tiered pricing based on consumption, with more subsidies directed to these communities. Leveraging civil society to provide capacity building to populations in this context could be impactful. The role of communal tap managers and informal water delivery personnel will be important to develop projects that address root causes and that can be managed at the local level, considering their deep knowledge of the context and their understanding of the issues.

3.2.1. Structuring long-term water project pipelines

Structuring long-term water project pipelines should start with a clear water strategy that reflect countries' long-term ambitions and needs. Projects, financial needs, and investment plans should be based on these strategies that will be the cornerstone of any partnership with other actors to boost water finance. Costs and revenues appraisal should be done for each project to determine the total investment and operational costs that are needed, the required revenue versus the expected revenue, and the level of subsidies / concessional resources necessary for private sector involvement to ensure affordability. This will provide visibility to the market regarding the pipeline of projects for the coming years (including their bankability). Each player (private sector, commercial lenders, philanthropists, donor countries, MDBs, etc.) can provide the right instrument and make long-term pledges that will further encourage the private sector to invest. **Ultimately, this will not only increase private investments into water, but also the share of lower income countries in water-related ODA.**

To achieve this and address the complexity, lack of scale and lack of implementation of water projects, one effective approach would be to support African countries in establishing strong and credible water project facilitation units. To strengthen their effectiveness and impact, these units should be supported with technical assistance and affordable resources from Multilateral, Regional, and Bilateral Development Banks. With this support, these units could:

- prioritise projects (see following paragraph on project planning below),
- develop transparent procurement processes based on factors like bankability, efficiency criteria, and subsidy availability,
- assess project readiness using standardised methods and implement necessary reforms to enable the investments in water (including under PPP schemes),
- coordinate among various local stakeholders (ministries, agencies, communal tap managers and water delivery personnel for small-scale projects that are not necessarily financed by the private sector or that are executed by SMEs, etc.) for water projects, and facilitating permits and agreement negotiations,
- define the subsidy levels or blended finance requirements for specific projects fairly, ensuring that the public sector does not over-subsidise, while offering an attractive risk-adjusted return to the private sector,
- provide information in a standardised format through common portals, including priority projects for the country, environmental studies, and standard contract clauses is also relevant for the success of these projects.

3.2.2. Project preparation and development services

There is a clear appetite for infrastructure projects on the continent, including water-related investments when there is clear route to commercial viability. However, the private sector may not be comfortable with early-stage risks due to the complexity of these transactions and the lack of visibility. This is why **governments and their partners should support the creation of water project preparation and development funds** that would enable to provide a pipeline of bankable projects and that would mitigate the lack of risk appetite for water-related investments. Preparation and development resources would enable the realisation of the full analysis of projects, structure them in the most optimal way, de-risk them as well as their environment and attract the required private capital. While preparation is focused on government (capacity building, adequate policies and reforms, project identification and planning, pre-feasibility), development is focused on the private sector role and represents the significant work to be done from pre-feasibility through to financial close to mitigate project risks and mobilise required private capital.

Box 2. Illustrations of water project preparation and development in Africa

The African Water Facility

The African Water Facility (AWF) was established in 2004, under the initiative of the African Ministers' Council on Water (AMCOW), to mobilise resources to finance water resources development activities in Africa. It is hosted and managed by the African Development Bank (AfDB). AWF provides grants and expert technical assistance to implement innovative water projects and raise investment for water projects throughout Africa. Since its operationalization in 2006, the AWF has developed a grant portfolio of 117 projects in 52 countries, including the most vulnerable countries.

In March 2024, the African Water Facility approved a grant of about EUR 2 million to Burundi for the development of water resources and the construction of the Ruvyironza multi-purpose dam to enhance water and food security and boost access to electricity. The preparation of feasibility studies will enable the development of this multipurpose water storage and supply infrastructure. According to the African Development Bank, anticipated outcomes of the infrastructure development include 22 MW of hydropower, access to water and sanitation services for over 270,000 rural households in the provinces most affected by the lack of water supply, and an irrigated perimeter of 14,674 hectares. An additional 417,000 people in certain urban areas will benefit, particularly from investments in drinking water accessibility, energy generation and distribution.

In April 2023, the African Water Facility launched a call for proposals with emphasis on projects that are high impact, transformative, catalytic, focused on climate adaptation and aligned with the Facility's strategic intervention areas. In response to this call, the Facility received 416 proposals with a total project preparation estimate of over EUR 1.0 billion. The selected 80 projects have a total project preparation cost estimate of over EUR 300 million, with potential to trigger over EUR 4.0 billion in downstream investment and benefit 625 million people.

Supporting local preparation and development platforms would significantly contribute to closing the gap in catalytic resources needed for more investments in water and sanitation projects on the continent.

The National Programme for Potable Water Supply and Irrigation from the Government of Morocco

In Morocco, the Government launched its National Programme for Potable Water Supply and Irrigation (PNAEPI, 2020-2027) with the objective of improving water security by accelerating investments in water and increasing the resilience of drinking water supply and irrigation while the Kingdom could face

a major water shortfall due to either expansion in demand for water or reduction in precipitation induced by climate change. The government is also encouraging a transition to unconventional water sources, such as desalinated seawater or the reuse of treated wastewater, as a viable strategy for increasing the available water supply and providing a reliable source of freshwater independent of rainfall pattern. **The development of structured long-term country-wide water plans by governments have a beneficial leverage effect on public and private investment, and on water security and resilience in countries.**

Sources: (Royaume du Maroc, 2020^[48]), (African Water Facility, 2024^[49])

3.3. Scaling up risk mitigation instruments for water

Once the countries have strengthened their water policy framework and have prepared strong pipeline of projects, it is important to propose projects specific risk mitigation instrument that will give more comfort to the private sector to invest in the identified projects.

A variety of instruments to de-risk water investments on the continent, including loan guarantees, blended finance funds could be scaled up for water:

- Loan guarantees, which include **Partial Risk Guarantees** to cover liquidity issues at project level and **Political Risk Insurances**. For instance, GuarantCo provided a joint partial credit risk guarantee with USAID of USD 1.8 million to Nedbank as part of the financing for the Kalangala Infrastructure project in Uganda, which aimed at upgrading the transport and water infrastructure, covering the non-payment of debt service (OECD, 2019^[6]).
- **Better targeted ODA** (building on the findings of Chapter 2): ODA providers could build eligibility criteria for water-related ODA, that could include the countries' financial efforts towards water and gap in water financing, clear water sector strategy and plan, strong pipeline of water projects and the countries' need for grants and concessional resources to attract more private capital. This will ensure that the countries that need these resources the most and that have strong ambitions in water will be prioritised and that the ODA will be catalytic by de-risking the commercial investments that they will attract.
- **Blended finance funds for water at global, regional, and local levels:** like for climate, the creation of a worldwide blended fund for water should be encouraged, to deploy grants and concessional resources in water projects to make them more bankable building on the experiences of the Green Climate Fund for example. At regional and country level, specific blended finance funds could be created with a minimum contribution from the government's budget and with substantial contributions from MDBs, donors' countries, philanthropists instead of them focusing too much on small size and fragmented projects. Pooling grants into large scale and impactful projects rather than small and fragmented ones would scale up the impact of these grants (see paragraph below on pooling projects). These blended finance funds should be run by professionals that would assess the opportunities and the amount of blended capital as well as the level of concessionality provided to a project based on its fundamentals and the end-beneficiaries. The contribution does not have to always be grants; it could be reimbursable grants, or junior equity to ensure scalability and sustainability.
- **Portfolio pooling arrangements can be effective in attracting large-scale commercial investment by reducing the transaction costs associated with risk-sharing arrangements for individual investments.**

Pooling projects and financing instruments could be an effective way forward to address selected unfavorable project attributes. Providing commercial investors' access to a variety of transactions

in the water and sanitation sector can mitigate concerns around small ticket size, risk exposure, limited sector, or regional knowledge as well as high transaction costs. Pooling mechanisms such as blended finance funds tailor different risk and return profiles for individual investors, with development financiers often taking the first loss and junior tranches buffering the risk for commercial investors in the senior tranches. Guarantees, moreover, can strategically mitigate portfolio risk (OECD, 2019^[6]).

An effective example of a syndication structure at portfolio level is IFC's Managed Co-Lending Portfolio Program (MCP), a pooled syndication arrangement allowing diverse types of investors to invest alongside IFC in developing countries, for example in clean energy infrastructure investments. With an eight-year long track record and USD 10 billion of funds raised from 11 commercial investors, in 2021 IFC launched the MCP One Planet, a new USD 3 billion iteration that specifically target investments that are aligned with the Paris Agreement (World Bank, 2023^[50]).

3.4. Diversifying financing instruments and financing sources

Many advanced countries have excess savings, which could be channeled into financing infrastructure in Africa, including in water. According to the African Development Bank, the fact that this mutually profitable global transaction is not taking place is one of the biggest paradoxes of current times (African Development Bank, 2018^[51]). The abovementioned proposals can help to address this paradox for water by tackling the risks that are preventing the managers of these savings to invest in water in Africa, although some of the challenges are intrinsic to the regulation that these fund managers must comply with. Other financial resources could be targeted.

3.4.1. Accessing domestic financing

Financing instruments can be developed to tap domestic capital markets for water and facilitate exits and trades (thanks to market liquidity). This includes the creation of **regional or country platforms with bankable water projects** that can be sold to the markets or can be refinanced with bonds, so that the initial investors can exit and recycle their money. The Water Finance Facility seeks to mobilise large-scale private investment from domestic institutional investors (e.g. pension funds, insurance companies) by issuing local currency bonds in support of domestic priorities on water and sanitation. The first such facility is the Kenya Pooled Water Fund, which has been initiated in Kenya with support of the Dutch government, Kenyan authorities and other development partners. (OECD, 2019^[6]). This includes **mobilising local savings through dedicated instruments into an operational and de-risked water infrastructure fund.** Water projects such as desalination, once de-risked and operational can provide attractive risk adjusted return. Hence, investors can then open the shareholding to instruments that mobilise local savings. The FCPR¹⁹ SEN FONDS, launched by the Senegalese Ministry of Economy, is an illustration. In the PPP concession agreement with Sen Eau, a portion of the capital is dedicated to the local private sector. The sovereign fund, FONDIS²⁰, is holding these shares on behalf of the private sector and is expected to divest through them. They could also exit through instruments such as FCPR (UMOA, 2022^[52]).

Providing access to local currency financing and mitigating currency risks is also key to mobilising private capital in water infrastructures projects in Africa. For instance, the Kigali Bulk Water Supply project incurred delays due to disagreements over the currency of the loans as well as a late notice from

¹⁹ Fonds commun de placement à risque

²⁰ Fonds Souverain d'Investissements Stratégiques

regulators that they did not support the impact on water and sanitation tariffs (OECD, 2019^[6]). Domestic guarantee platforms, as they adapt to local market regulations, can be an effective way to mitigate currency risks. The Infrastructure Credit Guarantee Company Limited (InfraCredit) was established by GuarantCo and the Nigeria Sovereign Investment Agency (NSIA) to provide credit enhancements for Nigerian local-currency debt instruments for infrastructure financing. InfraCredit's capital structure is composed of three tiers of capital, namely core, paid-in capital by NSIA and other institutional investors, callable capital by GuarantCo and subordinated capital by KfW and AfDB (InfraCredit Nigeria, 2023^[53]). InfraCredit is working on creating strategic partnerships with donors, development finance institutions (DFIs) and MDBs that could unlock new sources of early-stage capital for well-structured, bankable infrastructure projects (World Bank, 2023^[54]).

National development banks (NDBs) and local funds in Africa, which were almost absent from the water sector until now, represent an untapped potential for scaling up domestic finance for water.

Indeed, acknowledging that water is a condition and driver for sustainable economic growth, some NDBs recently started to consider water in their portfolio. Specific actions from NDBs include providing long-term financing in local currency at favourable interest rates (which is not the case of commercial banks), but also channelling sovereign loans to municipalities and utilities as well as participating in special purpose vehicles. NDBs can play a key role in channelling effectively financings from the capital markets, especially sustainable bonds, from international financial institutions and commercial banks to governments, water utilities, SPV and municipalities for water and sanitation projects with on-lending mechanism for instance. This is particularly relevant as NDBs may have i) a deeper understanding of the local context, ii) the possibility to target smaller utilities, municipalities and projects, iii) smaller ticket size for loans contrary to IFIs and international commercial banks that have constraints to provide loans below certain amounts. Ultimately, leveraging the NDBs will enable reaching more beneficiaries, especially those who are usually excluded and the rural areas. Finally, as mentioned above, NDBs can provide local currency loans, contrary to most MDBs, bilateral lenders, international commercial banks and institutional investors. By using on-lending mechanisms, NDBs can be used as a sort of currency-swap providers and fund water and sanitation projects without impacting countries' foreign debt sustainability or transferring currency risks to SPV, utilities or municipalities. Local public financial institutions can also play a key role in supporting project preparation and development to strengthen national project pipelines, providing technical assistance and promoting national sector dialogues (see more details in Annex A) and co-financing water and sanitation projects. The role of the sovereign fund FONSIS in the company SEN-Eau was highlighted above. As in the energy sector, it can be an anchor investor for strategic projects in water, contributing to the financing and execution of the preparation and development of water projects, as well as facilitating the process and the discussions with the public stakeholders. This approach, through NDBs and local public funds, will enable to support and increase financings for locally-led solutions that can be replicated across countries. A portion of the water subsidies accounts that are proposed in the section "*Strengthening the water policy investment framework*" can be used as catalytic capital or be blended with more commercial resources for NDBs and local public funds to deliver on such a mandate.

3.4.2. Developing innovative funding arrangements

Furthermore, innovative funding arrangements represent a significant potential to raise additional revenue from private actors for water management and internalise pressures on water bodies, resulting from abstraction or pollution (including through taxes). Several financing mechanisms and approaches are particularly promising in this respect, including Green, Social and Sustainable Bonds, Payments for Ecosystem Services (PES), Extended Producer Responsibility (EPR)²¹, or fiscal policies

²¹ EPR is a regulatory approach whereby a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle.

based on the Beneficiary Pays principle, such as land value capture mechanisms²² (OECD/Lincoln Institute of Land Policy, PKU-Lincoln Institute Center, 2022^[55]) (OECD, 2023^[56]).

Green, Social and Sustainable Bonds²³ can facilitate the flow of capital for water-related investments with clearly defined revenue streams. Bonds with long tenors, typical of the water sector, can attract institutional investors such as pension funds. Looking at sectors globally, the majority of proceeds were used for investments for energy and buildings and only 9% fell to the water sector in 2019 (CBI, 2020^[57]) (because of limitations inherent in water-related investments, as mentioned above). Yet, this represents an untapped potential for water in Africa, where such instruments have been shown to be an effective approach to financing large scale climate related projects.

Payments for Ecosystem Services²⁴ have been implemented in Africa via the Water Funds model. Water Funds provide a financial, technical and institutional mechanism that promotes public and private sector participation for watershed conservation. This mechanism offers opportunities to promote the sustainable management of watersheds and improved water security for downstream users, such as city dwellers, corporates or agricultural users. The water funds model, first set up by TNC and the Municipality of Quito, brings together different types of public and private actors in a pooling mechanism that provide long-term, sustainable finance to contribute to water security through nature-based solutions (OECD, 2019^[6]). In Africa, TNC has developed 14 Water Funds. The first one was the Upper Tana-Nairobi Water Fund (UTNWF), implemented to help secure the Nairobi water sources. The fund allows urban users to invest in upstream watershed conservation efforts, which at the same time benefit farmers, businesses and all the actors that depend on the Tana River. Major water users (including private companies such as Coca-Cola) are largely playing the role of investors, while non-urban communities receive training and incentives to support land conservation measures.

3.4.3. Coordinating multiple stakeholders

Finally, innovative arrangements to coordinate multiple stakeholders such as Just Water Partnerships (JWP) could also enable to crowd in additional capital. Following the model of Just Energy Transition Partnerships, JWP could drive down the cost of capital by using the complementary strengths of each funding stream - channelling current inefficient national subsidies, leveraging multilateral development banks and development finance institutions, and calling on private companies, banks and institutional investors, as well as philanthropic money. The multilateral development banks, regional development banks, and development finance institutions should collaborate closely with national governments, city and local authorities, and public development banks. This collaboration is essential to facilitating investments on their respective balance sheets while also increase the participation of private capital. It should encourage multi-stakeholder partnerships with public, private, and civil society

²² Land value capture is the recovery and public utilisation of increases in land value that result from public planning and infrastructure investments. Recovered revenues can be used to fund infrastructure for urban water, irrigation, and flood protection, including nature-based solutions. LVC offers a valuable solution for addressing sustainable land use, enhancing tax revenues, and bolstering the fiscal independence of subnational governments. Among the financing tools, developer obligations emerge as a practical mechanism. These obligations encompass cash or in-kind payments intended to offset the expenses associated with new public infrastructure and services that private development requires. Developer obligations come into play when developers actively seek development approvals or special permissions, thus aligning with the actions of private developers and landowners. Importantly, LVC needs to be used well to avoid overdevelopment and unnecessary increases in built-up area, as well as earmarking LVC gains towards wealthy areas (OECD, 2023^[56]).

²³ Bonds are a fixed income financial instrument to raise capital from investors through the debt capital market. The bond issuer raises a fixed amount of capital from investors, which is paid back after a specific time period with an agreed amount of interest. Investors increasingly show interest in use-of-proceed bonds, whose proceeds are earmarked for particular projects and purposes and which need to meet specified standards, concerning for instance social responsibility or sustainable development.

²⁴ PES are voluntary mechanisms where suppliers of ecosystem goods and services (EGS) are paid by the beneficiaries to manage the ecosystems so that the provision of EGS is maintained and/or enhanced.

participation. The economic return on these investments will far exceed their costs. JWPs should be country platforms with an approach for water where countries work with development banks and other actors to define policies and mobilise investment, which need blended finance mechanisms that have concessional elements, especially for low-income countries (GCEW, 2023^[13]). A first JWP was launched in Mexico in September 2023.

3.5. Water within the reform of the global financial architecture

In social sectors such as water, the private sector cannot realistically be the main financier. Governments and development banks will keep playing the key role through public resources, mobilised grants, development finance and commercial loans. In the meantime, most African countries are dealing with day-to-day priorities to the detriment of the huge investments needed for water. They must face food security, energy crises which require subsidies, health crises as well as security issues that can sometimes cost up to 3% of their respective GDPs. This is why there is a need to reform the global architecture for development finance to provide additional liquidities to developing and poorest countries to finance global public goods and national development priorities such as water.

Concrete propositions on the reform of the international financial architecture, to ensure it is fit for financing water in the Global South (including in Africa) were made at the [9th meeting](#) and [10th meeting](#) of the Roundtable on Financing Water (see Discussion highlights in Annex A). They included the following:

- **The definition of the hydrological cycle as a global common good** (GCEW, 2023^[13]) **is key to ensuring water projects have access to potential new financial windows** created with the reform of the global financial architecture.
- **G20 countries should accelerate the rechanneling of Special Drawing Rights (SDRs) through Multilateral Development Banks such as the African Development Bank**, that can use their own AAA ratings to scale up the resources received by a factor of three to four and finance more projects. This is particularly relevant in the current context with many African countries facing increased difficulty in accessing financial markets, with high costs of borrowings, or not able at all to access the financial market. **There should be a stronger case for allocating a greater share of rechannelled SDRs through MDBs or the Resilience and Sustainability Trust to water projects**, taking into account recommendations that the hydrological cycle should be considered as a global common good and that it is at the cornerstone of the climate change issue, from mitigation, to adaptation, loss and damage. This would enable vulnerable countries to have more liquidity to build climate resilient water infrastructures and to face losses and damages when they happen. The current quota rules result in G20 countries being granted the bulk of issuances, and African countries around 5%. These rules do not reflect the vulnerability of countries to climate and water or countries' level of ambition for climate and water. **SDRs could also be rechannelled into a guarantee fund, in order to give access to capital markets to African countries** (will go from 7 to 3% interest rate a year, the profit could be invested in water).
- Many African countries are facing constraints to finance water due to their debt ceilings (70% of GDP), and budget deficit ceilings (3% of GDP). **Debt-for-water swap could be implemented, contributing to financing water** while addressing high-level of sovereign debt of emerging economies (see background document prepared for the 10th meeting of the Roundtable on Financing Water on [Refinancing debt for conservation and climate: the example of TNC's Nature Bonds program and its applicability to freshwater](#)). To implement a successful debt-for-water swap, it will be critical to work with the countries to identify the pipeline of projects that will be funded with the avoided debt services and to build clear KPIs to ensure that the resources will be efficiently used, and impacts will be achieved.

- **Budget supports to governments and loans of public development banks could be conditional, in certain cases, on all sectors treating water as seriously as the global climate crisis, especially water-intensive sectors.** It would help to put water security at the same level as climate change in international negotiations. MDBs would have a big role to play to achieve this objective, and more importantly their shareholders (countries). **Aligning water and climate objectives is important as water is at the cornerstone of climate change issues and the transition to net zero,** from mitigation, adaption, loss and damage perspectives. Strategically linking water-related investments with climate action can help achieve both climate goals and water security and unlock financing flows. For example, the new Resilience and Sustainability Fund within IMF should benefit to water projects on the continent.

Annex A. Discussion highlights of the 10th Roundtable on Financing Water: Regional meeting on Africa (OECD and African Development Bank)

Introduction

The 10th Roundtable on Financing Water: Regional meeting on Africa was co-convened by the OECD and the African Development Bank, in partnership with the government of the Netherlands, the World Water Council and the World Bank. 300 leading finance and water experts²⁵ from across Africa, and beyond, gathered in Abidjan to review and explore new approaches to water finance and promote impactful ways of financing water-related investment in Africa. Two regional initiatives²⁶ were presented. The Roundtable meeting was the first after the UN 2023 Water Conference and took place a few days before COP 28, where the key takeaways were shared.

Beyond significant financing needs, there is a strong economic case for financing water in Africa, considering that water drives economic development in the region and that water and biodiversity in Africa benefit global value chains. The challenging macroeconomic context (increased difficulty in accessing financial markets, burgeoning public debt and liquidity issues) and the decline in official development assistance to Africa have reduced the capacity of African countries to invest in crucial sectors, including water and sanitation. Despite the challenges and the urgency of the water crisis, Africa also presents significant opportunities for sustainable investment, in particular for water (GDP growth, natural resources, domestic financial resources, young population). Strengthening economic policy instruments and developing multilateral trade agreements for sustainable water management have the potential to harness the value of Africa's water and drive fair and sustainable water resource management globally. Furthermore, in addition to usual suspects (essentially central governments and DFIs), there is scope for national and regional financiers (development banks, domestic commercial financiers, central banks) to play a more active role in financing water.

²⁵ Leaders of water utilities, water regulatory authorities, governments, public and private investors, financial institutions, commercial banks, central banks, and others

²⁶ the 300 Water Leaders Initiative for Africa and the Investment Action Plan of the High-Level Panel on Water Investments for Africa

Key messages

- **Without efficient and equitable investments in water, there will be no sustainable economies in Africa.** Investing in water has a multiplying effect to all sectors of the economy and society. The management of water resources has to be in line with countries' economic development strategies.
- **National and regional development banks represent a significant untapped potential for financing water security in Africa.** Acknowledging that water is a condition and driver for sustainable economic growth, some national development banks recently started to consider water in their portfolio.
- **There is significant scope to mobilise private sources of finance for water in Africa more effectively,** by strengthening water investment frameworks and diversifying financing instruments. The limitations of mobilising the private sector for water should be clearly understood to enhance its effectiveness.
- **High-income economies rely heavily on Africa's water sources through trade.** Unsustainable water footprints degrade the continent's water resources. **Accelerating the reform of tax systems, strengthening economic policy instruments for water management and developing multilateral trade agreements** have the potential to harness the value of Africa's water and drive fair and sustainable water resource management globally.
- **Water risk is an important source of vulnerability to African economies** given dependencies on primary sectors. **Understanding double materiality is critical. Central Banks** must put in place strategies to address nature-related risks and ensure financial and monetary stability. **Commercial banks** have an important role in understanding climate risks and integrating them into their daily operations. It is **important to have an African voice** on these issues, **through coordination of different initiatives.**
- **Sub-Saharan Africa remains the area in the world with the lowest access to sanitation services.** National regulators are increasingly involved in **regulating and monitoring sanitation** (in addition to water) and have a key role to play in unlocking finance for sanitation, as recommended by the [ESAWAS regulators association](#). Governments and regulators are responsible in particular for **lowering the transaction costs for investors** (including private) - providing clear entry routes and long-term project pipelines.
- **For African water utility leaders, sector prioritisation from national governments, tailored regulation, increased flexibility in financing conditions from DFIs, and capacity building** would greatly help them to face their challenges to service delivery and unlock opportunities for financing. African utility leaders could benefit from sharing their challenges and successes with fellow leaders through the [300 Water Leaders Initiative](#).
- Beyond financing water, the compatibility of the **current international economic system** and the **international financial architecture** with the sustainable management of water resources is being questioned. Finally, the issue of measuring and mitigating the impact of water-intensive industries (agriculture, industry, mining and others) on water resources must also be central to the debate.

Opening / Session 1 – Setting the scene: Investing in water, a condition for the prosperity of African economies

The opening and session 1 defined the specific challenges and opportunities for financing water-related investments in the continent, the scale of financing needs and capacities, paving the way for regional solutions and giving African perspectives on the global water agenda (UN 2026 Water Conference, SDG summit, COP 28...).

In a very difficult macroeconomic and financial context, combined with a fall in official development assistance, the challenges of financing water are becoming more acute in Africa. 1 in every 3 people across Africa face water scarcity; 447 million people are denied even a basic drinking water supply and 805 million lack access to at least basic sanitation services. Population growth, rapid urbanisation, agricultural demand, and climate change – especially climate-related natural disasters like droughts, and floods – amplify these challenges. Achieving SDG6 by 2030 in Africa would require an increase in rates of progress by: 12 for safely managed drinking water, 20 for safely managed sanitation, 42 for basic hygiene services.

Despite the challenges and the urgency of the water crisis, Africa presents significant opportunities for sustainable investment, in particular for water. Africa is among the fastest regional growing economies in the world (on average 2-4% for the next five years). Moreover, significant progress has already been made in closing the gap, considering that the greatest increase in water access was achieved by the continent in the last two decades, despite the population growth. The report of the [High Level Panel on Water Investments in Africa](#) shows that most of the investment needed to close the gap could come from domestic sources, in particular by increasing the efficiency of investments and policies. Yet, current investment levels by countries are estimated at 0.5% of GDP on average, while expenditures required to reach SDG 6 targets in Sub-Saharan Africa are estimated over 4% of GDP on average.

Without efficient and equitable investments in water, there will be no sustainable economies in Africa. Investing in water has a **multiplying effect** to all sectors of the economy. Every US dollar invested in climate-resilient water and sanitation yields at least US \$7 in gains for economies. The cost of inaction is high - nearly 200 billion US dollars are lost every year due to lack of investment in water and sanitation on the continent. Under a business-as-usual scenario, the Sahel and Central Africa are projected to experience negative GDP impacts of 12% and 7% respectively by 2050 because of climate change effects on water resources.

Management of water resources has to be in line with countries' economic development strategies. Taking a holistic approach that recognises the complexity of water services and their interconnection with multiple systems is necessary. In that perspective, the World Bank developed a country climate development report (CCDR) to integrate climate and development (they are finalising the one of Cote d'Ivoire), in which water is at the centre of the conversation. Furthermore, countries should strengthen their economy-wide approaches to water management. This approach brought results in Namibia (coordination forums), Zimbabwe (coordination committees), Tanzania (national sanitation campaign) and Ethiopia (wash national programmes).

Bridging the financing gap will require a more effective use of the diverse sources of finance for water (in particular private and domestic sources), improving sector prioritisation by governments, strengthening the enabling conditions, creating robust water strategies, creditworthy utilities, stable regulation, and long-term predictable water portfolios. Examples from countries like Tanzania, Angola, and Kenya highlight increased investment following the establishment of autonomous economic regulation for water services. The development of innovative financial mechanisms such as green bonds or water and sanitation-specific investment funds (such as the Blue Fund in Senegal) and securitisation instruments are relevant options to be considered by governments. Finally, at the global level, financing water deserves

robust global initiatives at the same level as the Green Climate Fund (GCF) and other large-scale financing mechanisms.

Session 2 – The untapped power of regional and national development banks

Regional and national development banks represent a nearly untapped potential source of funding for the water sector in Africa. Session 2 discussed the challenges and opportunities for regional and national development banks to invest in water in Africa, and the role of multilateral development banks to support them in their endeavour to integrate water into their portfolios.

National and regional development banks represent a significant potential for financing water security in Africa. In 2020, there were 95 development banks operating at subnational, national and regional levels in Africa, investing USD 24 billion per year. Water is currently almost absent from the portfolios of national and regional development banks. Their mandate is to finance economic development in their region or country. Acknowledging that water is a condition and driver for economic growth and poverty eradication, national development banks recently started to consider water in their portfolio. Specific actions from national development banks (NDBs) include providing long-term financing in local currency at favourable interest rates (which is not the case of commercial banks), channelling sovereign loans to municipalities and utilities, participating in special purpose vehicles, supporting project preparation and development to strengthen national project pipelines, providing technical assistance and promoting national sector dialogues. To encourage the involvement of NDBs in water, the [Water Finance Coalition](#) – a global coalition of public development banks active on water finance – is providing technical assistance to national development banks to help them to include water in their strategies and portfolios. Three pilots are on-going in Africa, in Asia and in Latin America.

The main reasons for the lack of investment in water by NDBs include the lack of prioritisation of water in national development plans, the financial weaknesses of water utilities and the difficulty for NDBs to access capital markets. NDBs align their priorities with national development plans and strategies, in which water is not always prioritised. If water is put at the forefront by policymakers (as a key sector for economic development), NDBs would be inclined to designate water as a strategic priority. For instance, the Development Bank of Southern Africa (DBSA) is collaborating with the Government of South Africa through the Water Partnership, which aims to create a water reuse program to leverage funding for water (including private).

MDBs have a key role to play in supporting regional and NDBs in including water in their portfolios. As NDBs often face financial constraints in accessing international capital markets, MDBs can serve as intermediaries, facilitating NDBs' access to more cost-effective finance. The AfDB is a triple AAA-rated institution which has therefore access to global markets at a low rate and can provide a line of credit to NDBs, who can afterwards lend to water projects at concessional rates. MDBs could also further cooperate in co-financing, particularly for early-stage projects, as NDBs often do not have the financial robustness to invest in risky projects. In addition, **cooperation between national and multilateral banks can enable them to be better equipped to deal with foreign exchange risks** (mutual benefit). Finally, MDBs and multilateral agencies (such as AUDA-NEPAD) can support governments in strengthening the enabling environment for investment in water, including to facilitate financing from NDBs. MDBs can collaborate with NDBs which have a privileged and strong relationship with their national governments and are best placed to provide guidance or advice as regards economic development and priorities for investment.

In a context of reduced availability of concessional resources, development banks should prioritise projects with lower returns and develop accreditations to access climate finance. The West African Development Bank (BOAD) faces constraints in allocating substantial funding to water due to the diminishing availability of concessional resources (only 600 million FCFA per country per year). Thus, development banks should prioritise projects with anticipated lower returns, especially in rural areas where

establishing commercial projects proves challenging. BOAD managed to access more financing for water thanks to its accreditations for environmental, climate and adaptation funds. Similarly, DBSA has managed to get accreditation to access concessional funding from the GCF, which led to increased investments in water. DBSA has provided support to eight regional and NDBs in improving their financial and IT systems and obtaining accreditation from the GCF.

Session 3 – Leveraging private finance for water

While the main sources of finance for water in Africa are likely to remain public and concessional financing, there is potential to mobilise private capital more effectively. Only 9% of investment in water assets/services in developing countries comes from the private sector; versus 87% in telecoms and 45% in power. This session explored opportunities related to incentives, innovative instruments, and enabling conditions for efficient private investment in water in Africa.

DFIs could more effectively leverage private finance for water in Africa, using several levers, which includes supporting prefeasibility studies and the development of replicable and scalable structuring approaches, providing concessional funding and risk mitigation instruments. Following the example of the viability gap funding of the IFC, DFIs can provide grants to strengthen projects' financial sustainability and revenue streams, until they become viable. They can also support the development of **Independent Water Producer (IWP) models**, drawing inspiration from the success of independent energy producers (IPP). Furthermore, the Scaling Solar model (see box below), developed by the IFC, could be replicated to water, with the creation of **'Scaling Water' programmes**, packages enabling rapid project preparation, tendering, and financial close, to ease private finance for water in Africa.

Sovereign funds can also play a more active role, in several ways: i) supporting project preparation and development, ii) co-investing in equity through joint ventures and PPPs, iii) supporting the development of blended finance mechanisms and innovative funding. Le Fonds Souverain d'Investissements Stratégiques (FONSIS) is following this approach in Senegal (see box below).

Pioneering private equity funds in Africa are trying to integrate water in their portfolios. The Water acceleration Fund, managed by Incofin Investment Management, was launched at the UN 2023 Water Conference as the first private equity fund for safe drinking water in the world, with EUR 36 million of commitments and the aim to achieve total capital commitments of EUR 70 million in subsequent closings. The committed capital comes from a diverse pool of private and public investors (see box below). It plans to invest in various decentralised solutions, such as water kiosks, as well as in water pipe infrastructure and water technologies. The fund is relying on a pre-investment technical assistance to face the challenge of scarcity of bankable projects.

Box 3. Leveraging private finance for water

The [Scaling Solar](#) programme supported by the IFC, a 'one-stop-shop' programme which successfully supported private investment in solar energy in Africa, is interesting. This comprehensive package includes technical assistance, streamlined and rapid tendering processes, fully developed templates, competitive financing, insurance, risk management, and credit enhancement. This model could be replicated to water, with the creation of '[Scaling Water](#)' programmes.

Le **Fonds Souverain d'Investissements Stratégiques (FONSIS)** is supporting the preparation and development of water projects, including feasibility, securing land and permits, climate and social assessment, among others. FONSIS has actively participated in joint ventures, notably taking equity in the water distribution company for urban areas in Senegal. FONSIS is also well positioned to be in charge of the operationalisation of the Blue Fund in Senegal - a \$1 billion equity investment fund aiming at supporting projects and SMEs in the WASH sector, diversifying funding sources, structuring water projects and developing a private enterprises ecosystem.

Incofin Investment Management has an ambitious target of providing 20 billion liters of water to 30 million people, mainly in Africa (mostly sub-Saharan Africa) and Asia. The committed capital comes from a diverse pool of private and public investors, including Danone along with BNP Paris, the U.S. International Development Finance Corporate (DFC), Norfund, the Danish development finance institution and Aqua for All. The U.S. Agency for International Development (USAID) provided catalytic funding to enable a first-loss tranche.

Source: Authors based on the Roundtable discussions

Various PPP models for water in Africa can be part of the solution if they are well framed and regulated. The WB PPP database shows that only a small share of these arrangements is in water, due to the high input costs and low cost recovery. Across the continent, different models of PPP are developing (such as the Kigali Bulk Water Supply developed by Metito), with various levels of maturity and focusing on different sectors (desalination in North Africa, bulk and sanitation in East and West Africa, bulk and transports in South Africa). There are opportunities to replicate and enhance PPP models by enhancing transparency in the process, clearly defining responsibilities, and establishing a robust legal framework (giving clarity on conflict resolution, responsibilities, risks and benefit sharing notably).

The limitations of mobilising the private sector for water should be clearly understood to enhance its effectiveness. Looking beyond financial transactions, the ultimate goal should be universal access to water and sanitation. As private entities seek to maximise returns, adequate preparation, governance mechanisms and regulation becomes essential to mitigate potential pitfalls (to prevent adverse outcomes, similar to challenges observed in England and Wales).

Nature Bonds can help governments reduce their sovereign debt burden and unlock (private) funds to meet climate, biodiversity and water ambitions. The instruments are particularly relevant for countries in Sub-Saharan Africa facing difficulties in accessing financial markets and a persistent debt crisis. Nature Bonds are a mechanism where commercial debt is traded at a discount, creating an opportunity for countries to refinance with new lines of credit featuring more favourable terms. The resulting savings are then directed towards an independent conservation fund. A notable example is the [Gabon Nature Bond Project](#), representing the largest debt conversion led by The Nature Conservancy (TNC) to date, and

the first of its kind in mainland Africa. While the focus has been on saltwater conservation, the same approach can be extended to freshwater conservation initiatives.

Session 4 – The Global Value of Water and Biodiversity in Africa

Water and biodiversity in Africa have global value, through trade and global value chains. Session 4 characterised that global value and explored tools that can acknowledge it and redirect financing flows so that they benefit African economies and communities.

High-income economies rely heavily on Africa's water sources through trade, according to data presented by the [Fair Water Footprint](#). High-income countries have an external water footprint that generally represents between 50% and 80% of the water they consume. A quarter to a third of the water footprint of the Global North countries comes from Africa. Similarly, key sectors of Africa's export economy rely on large water withdrawals and highly polluting industries, due to dependence on agricultural products and minerals. 92% of Africa's exports, worth around 432 billion dollars a year, depend essentially on water. **Unsustainable water footprints degrade the continent's water resources.** Half of the Global North's water footprint is unsustainable, leading to the depletion and pollution of rivers, aquifers and lakes. In-depth field research confirms this, with examples such as the sugar sector exacerbating droughts and floods in Tanzania, Malawi and Zambia, textiles and mining polluting water bodies in Madagascar and Zambia, the production of fresh fruit, vegetable and flowers driving water crises and denial of the human right to water in Kenya, Ethiopia and Morocco. Surpassing the 1.5-degree threshold is expected to significantly intensify these pressures on human health, ecosystems and economies, which spread throughout the global supply chain.

Accelerating the reform of national tax systems and strengthening economic policy instruments for water management (e.g., abstraction and pollution charges) **have the potential to harness the value of Africa's water and drive fair and sustainable water resource management globally.** Currently, African countries tend to charge insufficient amounts (tariffs, charges, fees...) for the water used. By implementing adequate charges for water use and wastewater discharge, the global community will be encouraged to use water resources more sustainably. In addition, examining the tax system becomes crucial, especially considering the practice of offshoring taxes by multinational corporations benefiting from water use in Africa. The OECD estimates that countries globally lose a substantial amount, between 100 and 240 billion USD annually, due to base erosion and profit shifting (BEPS). While some countries in Africa have joined the [OECD/G20 inclusive framework on BEPS](#), others are yet to do so.

Collective commitment towards transparent and sustainable supply chains and the implementation of multilateral trade agreements supporting the sustainable use of water can be transformative. The Fair Water Footprint Declaration, launched at COP 27 in Glasgow, commits its signatories (governments, global businesses and investors, among others)²⁷ to a fair water footprint²⁸ by 2030. While there are still no multilateral trade agreements on the sustainable use of water, many hopes are pinned on the [Global Commission on the Economics of Water](#) (which will deliver its final report at the end of 2024) and the UN (which is currently working on a UN-wide water strategy) to propose multilateral agreements that better reflect the value of water.

Country driven initiatives are also essential. The [Freshwater Challenge](#) is a country-led initiative launched in 2023 that aims at restoring 300,000 km of degraded rivers and 350 million hectares of degraded wetlands by 2030, conserving freshwater ecosystems intact. In Africa, Uganda is one country who is

²⁷ 28 signatories to date, including 6 global businesses and investors, 8 governments and 14 external support agencies and civil society organisations.

²⁸ A fair water footprint means: Zero Water Pollution, Sustainable and equitable withdrawal and water use, Full access to safe water, sanitation and hygiene for workers, Working with and protecting nature, Planning for droughts and floods.

supporting the Freshwater Challenge. In this country, it is estimated that water resources contribute 9% to GDP. The country has developed integrated planning for water resources at the catchment level (32 catchments). The country is revising its Water Act. The intention is to make the cost of water degradation more stringent than the cost of restoring water resources, and to support that any water-related investment devote up to 3% of the overall investment to the protection of the catchment that supplies the water.

Frequent and thorough freshwater assessments are required, to have clearer views of the state of water resources and how their degradation affects economies and communities. The implementation of natural capital accounting for water, on the model of other natural resources, is also an option to better value water resources, monitor impacts and compensations. Moreover, **the implementation of appropriate economic instruments, such as payment for ecosystem services, can leverage private finance to achieve cost-effective conservation and sustainable water management.** The Nature Conservancy's (TNC) implemented this model at scale in Africa, with the [Africa Water Funds](#): downstream communities (beneficiaries) engage upstream communities (stewards and providers) in conservation actions and sustainable management of water resources, and thereby offset their impact, by pooling funds to cover the associated costs. After launching a first water fund in Nairobi, TNC is now operating sixteen funds across the continent. Every dollar invested can save up to 8 dollars.

Session 5 – Water-related risks and implications for financial institutions in Africa

There is increasing recognition of the importance of identifying, understanding, and managing water-related financial risks, for safeguarding against financial shocks but also for promoting responsible investment practices. Session 5 looked at existing financial market initiatives and regulatory guidance in Africa that contribute to enhancing the management of water-related risks within the realms of both natural and climate risk considerations.

Evolving threats linked to climate and nature risks require better policies, regulation and capacity building to help the banking sector manage a changing risk environment. Climate risk is often seen as being a risk of the future. In the case of Africa, climate change impacts are happening now, with immediate implication for societies and economies, and also to financial systems. The continent is seeing increased incidences of prolonged drought and flooding. In an illustrative case, the session documented how water risk is as a source of vulnerability to West African countries given the dependency of primary sectors on water. Water risk has a notable impact on farming and agriculture, with very direct risks of food shortages and food insecurity. These risks have a negative impact on the solvency and financial capacity of financial agents. Lessons from West Africa are relevant at continental level. Studies show that African banks are increasingly vulnerable to climate change, notably through credit operational and liquidity risk. It is becoming apparent that water risks have implications across all sectors, requiring an improved understanding of complexities and interdependencies. This also highlights that water cannot be considered in isolation. Greater alignment on water strategy and awareness of water risk is needed across sectors (for example, agriculture, mining, WSS, urban development).

Understanding double materiality is critical. Portfolios are dependent on the provisioning of ecosystem services, including water supply, but are also responsible for exerting pressure on ecosystems across Africa. It is important that financial institutions understand the materiality of water-related risks, to understand balance sheet risk, and therefore to better manage financial risks. At the same time, by better understanding of how investments impact on water resources, financial institutions are better able to divert investment towards investment in water security and away from activities that exacerbate risks. Understanding nature related financial risks, including those relating to water, means comprehensively exploring feedback loops from a biophysical perspective, understanding the consequences of factors like excessive water use on nature, evaluating their economic impacts, and discerning ensuing financial implications.

Faced with these challenges, central banks have an important role in putting in place risk management frameworks to preserve the economy from impacts of climate and nature. They also have a role in prioritising sectors that support sustainable development goals and water security. BCEAO (Banque Centrale des États de l'Afrique de l'Ouest or Central Bank of West African States) is working on putting in place monetary policy instruments to increase allocation of bank lending toward low carbon sectors. For the stability of the financial sector, BCEAO is working towards integrating climate risks macro-prudential policy; this paves the way to factoring nature and water risks as well.

Commercial banks have an important role in understanding climate risks and integrating them into their operations. In the case of Africa, climate risks are materialising already. When a bank provides a loan facility to a farmer in a zone where water is largely scarce, there is a direct credit risk. Banks need to be able to manage this risk today. But there is positive news. There is growing awareness and four out of five banks surveyed in Africa have put in place or are putting in place a strategy to manage climate risk.

The session also highlighted the importance of having an African voice, through coordination of different initiatives. In addition, data will be critical to develop effective environmental standards, for financial institutions to develop products, and for corporates to improve water management practices.

Session 6 – Financing sanitation

The session focused on the financing gap, achieving success in attracting private and climate finance, strengthening sanitation business cases, and introducing AUSII to the audience.

Sub-Saharan Africa remains the area in the world with the lowest access to sanitation services, with over 700 million people lacking basic sanitation, one-third of them residing in urban areas. Only 30% of urban populations have access to safely managed sanitation; open defecation is practiced by 200 million individuals, 10% of which live in rural areas. **Specific challenges** such as rapid urbanisation, aging infrastructure, financial inefficiencies of water and sanitation utilities, poor governance arrangements, increased water stress and scarcity, and climate change contribute to the persistent low sanitation coverage.

The financing gap is substantial, requiring 1.1% of GDP for basic sanitation and 2.5% for safe sanitation. Bridging this gap would require an investment in capital costs of US\$10 billion, accompanied by operation and maintenance costs of US\$7.2 billion per year. Impediments include low visibility of revenues, inadequate management and operational performance, limited planning capacity, underdeveloped financial markets, and a lack of suitable financing frameworks. Yet, **the economic benefits of investing in sanitation are significant,** offering a 3-fold return on investment in urban areas and an even more substantial 5 to 6-fold return in rural areas.

Adapting financing mechanisms to sanitation projects and further developing financing instruments are needed to unlock financing. Firstly, governments should develop predictable and long-term sanitation projects pipelines with a clear vision of which projects can be financed by the public or private sectors, or both. For instance, sewerage networks can be supported mainly by sovereign loans, while wastewater treatment can be partly financed and operated by the private sector. Innovative financing instruments for sanitation are emerging and should be further developed (with the support of governments, DFIs...). Some countries, such as Zambia and Kenya, implemented sanitation levies or charges to invest in sanitation. In addition, there is hope that instruments such as blue and green bonds, blended finance, guarantees, can be further developed and tailored to financing sanitation.

Governments and regulators (with the support of DFIs) have a key role to play in creating the conditions to lower transactions costs and diversifying financing sources. National regulators are increasingly involved in regulating and monitoring sanitation and have a key role to play in unlocking finance for sanitation. At the regional level, [ESAWAS regulators association](#) has developed a recommended

regulatory framework. It recognises the importance of integrating water and sanitation into one overarching policy (under the responsibility of the same Ministry), and the importance for regulators to also cover sanitation. Governments and regulators are responsible in particular of providing clear entry routes and facilitating development phases (with the example of the [Kenya Innovative Finance Facility for Water, KIFFWA](#)), and clear, simplified and standardised procedures (including templates documents, tendering and contracts). For instance, Saudi Arabia launched around 12 PPP in water treatment, defining a clear financial structure and using standardised templates, giving the private sector clear information on risks and benefits sharing.

Raising awareness on the role of sanitation for climate change adaptation and mitigation and valuing the by-products of sanitation will enable to harness climate and green finance for sanitation. Successfully presenting the sanitation sector as having a significant influence on climate change could open doors to climate finance and green finance. This presents a great opportunity, but also a challenge, to effectively illustrate this link via data and research, and to convince and raise awareness. Furthermore, developing a better understanding of the by-products of wastewater treatment (biogas, treated waste), and recycling them, will enhance access to financing.

The development of information, data, and tools to guide decision-making is also a lever for more efficient investments in sanitation. Tools are emerging to support governments in the provision of sanitation services, in particular to guide decision-making in terms of investment (costs and benefits analyses) and tariff setting.

Annex B. Role and use of leveraging mechanisms in mobilising private finance

Leveraging mechanisms refer to financial instruments and structures designed and implemented by public finance providers to help attract, de-risk and direct private capital towards sustainable development, and in the context of this paper, towards climate change projects. The table below provides an overview of the definitions, use and purpose of different leveraging mechanisms captured in OECD DAC statistics (OECD, 2023^[25]).

Table A B.1. Role and use of leveraging mechanisms in mobilising private finance

Leveraging mechanism	Definition	Underlying financial instruments used by public finance providers	Typical mobilised private finance
Direct investments in companies and special purpose vehicles (SPVs)	In the context of project finance, these mechanisms refer to mobilising private investments in SPVs, which are neither covered by official guarantors nor part of a syndicated loan. Beyond project finance, direct investment in companies refers to loans, mezzanine finance and equity investments in enterprises alongside with private investors to provide liquidity for expansion purposes.	Equity investments, mezzanine finance, standard loans, bonds, and other debt instruments	In the context of project finance: private equity investments or private debt financing in SPVs (if not through syndicated loans). Beyond project finance: private debt financing (not syndicated) and equities invested in enterprises.
Guarantees	Guarantees are legally binding agreements under which the guarantor agrees to pay part or the entire amount due on a loan, equity, or other instrument in the event of non-payment by the obligor or loss of value in case of investment.	Guarantees and other unfunded contingent liabilities	Private equity investments and loans to SPVs and companies as well as portfolios of private local finance institutions
Syndicated loans	Syndicated loans are defined as loans provided by a group of lenders (called a syndicate) who work together to provide funds to a single borrower.	Standard loans, subordinated loans	Private lenders participating in the loan syndication.
Credit lines	Credit lines refer to a standing credit amount which can be drawn upon by borrowers (typically local finance institutions) for on-lending purposes, mainly to SMEs.	Standard loans, subordinated loans	Top-up funds by private local finance institutions and in certain cases also equity investments in the end borrowers (if required).
Simple co-financing arrangements	Simple co-financing arrangements refer to various business partnerships, B2B programmes, business surveys, matching programmes, co-financing of specific projects and similar arrangements where official providers extend finance in co-financing with the private sector.	Standard loans, subordinated grants,	Private co-finance of specific projects in the field or in the context of business partnerships

Source: (OECD, 2023^[25])

Annex C. Primer on blended finance

Blended finance in the development cooperation landscape

In order to respond to the global development challenges, the 2015 Addis Ababa Action Agenda (AAAA) put emphasis on the need to work closer with and increase investments of the private sector. Blended finance offers a promising approach to crowd-in additional commercial finance that is not currently invested for development outcomes, whereby blended finance is defined as the strategic use of development finance for the mobilisation of additional finance towards sustainable development in developing countries (OECD, 2018^[58]). Development finance can thereby be concessional finance or non-concessional finance coming from public or private sources, e.g. philanthropic actors. Additional finance focuses on commercial finance, which refers to finance invested at commercial rates from private sources or public investors such as sovereign wealth funds.

The OECD Development Assistance Committee (DAC) Blended Finance Principles for Unlocking Commercial Finance for the Sustainable Development Goals are a regulatory framework that work towards sustainability of blended finance as a one approach to mobilise private finance in donors' toolboxes (Figure A.C.1.). The OECD is developed guidance complementing the principles to provide further evidence to DAC members. Moreover, the OECD conducted a series of deep-dives into blended finance in specific contexts, including by sectors (water and sanitation (OECD, 2019^[6]); agriculture in 2020), income group (OECD/UNCDF, 2019^[59]), as well as geographical contexts as fragile contexts (Basile and Neunuebel, 2019^[42]).

Figure A C.1. OECD DAC Blended Finance Principles

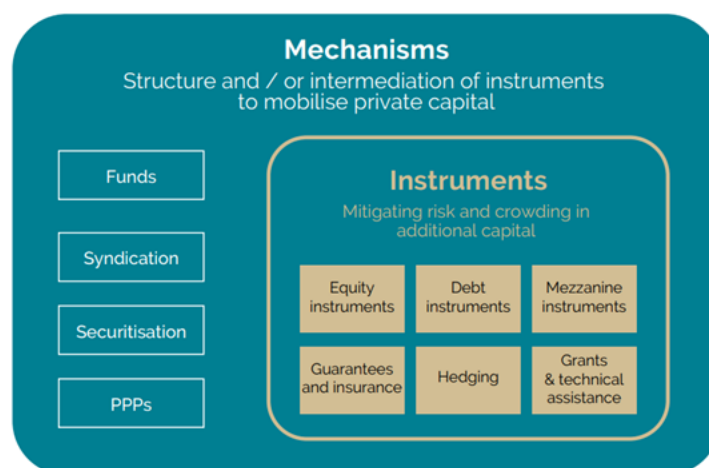


Source: (OECD, 2017^[60])

Blended finance instruments and mechanisms

Blended finance approaches can be categorised according to mechanisms and instruments. Blended instruments include equity, debt or mezzanine investments directly invested in typically companies or projects (OECD, 2018^[58]). By deploying development finance in either of these forms, commercial investors can be mobilised by improving the viability of a transaction or enhancing its credit profile. Blended finance transactions can involve direct monetary contributions without expectation of repayment and non-monetary provisions in the form of advice or assistance, i.e. grants and technical assistance respectively that further strengthen project capacity to help mobilise commercial investment. Instruments also include credit enhancement in the form of insurance and guarantees, which can cover for example credit risk (typically partially) or political risk. Guarantees back commercial financier's confidence by transferring the risk of for instance debt service shortfall to the guarantor against a fee.

Figure A C.2. Blended finance instruments and mechanisms



Note: Blended finance transactions can include the use of *financial instruments* to crowd in commercial investments as well as *mechanisms* to structure or intermediate instruments with the same purpose. Instruments can facilitate private investments in the financing structure of a project, both at concessional terms and market rates. In addition, instruments such as guarantees or insurance can facilitate private investment without the investor bearing some or all of the risk of default.

Source: (OECD, 2018^[58])

Investment funds or collective investment vehicles (CIVs) constitute mechanisms to address issues related to high risk, small investment volumes and limited sectoral or regional financial knowledge. In doing so, investment vehicles provide access to a portfolio of projects specific sectors or regions using different type of instruments, including equity, debt or guarantees. Thereby, larger volumes of commercial investment can be channelled towards sustainable development projects. Commercial investors benefit from risk diversification as well as often first loss coverage provided by development actors in the case of structured funds. Syndicated loans are an efficient way to reduce transaction costs, while harnessing the due diligence capacity of the lead arranger, typically MDBs in blended structures. Commercial lenders disburse additional credit volumes as part of the syndicated loan. PPPs can be financed in blended forms, for example when development actors are mitigating credit or political risk for commercial actors.

Annex D. Summary of investment attributes across three water sub-sectors

Feature	Water and Sanitation Utilities	Off-grid sanitation	MPWI and Landscape-based Approaches
Risk			
Macroeconomic and business risks	Currency risk (due to mismatch in revenue and debt servicing currency), operating risk (weak performance of utilities), and credit risk (inability of counterparty to honor contractual arrangements).	Currency risk (due to mismatch in revenue and debt servicing currency), market risk (demand for service), operating risk (weak performance of sanitation service providers), and liquidity risk (inability to exit/sell).	Currency risk (due to mismatch in revenue and debt servicing currency), credit/off-taker risk (if applicable), operating risk (due to a variety of different technologies in MPWI), termination risk (risk of early termination of long-term contracts), market risk (demand for service), and construction risk (if applicable).
Regulatory and political risks	Regulatory and political risk (sensitivities around water and sanitation tariffs and potential for political interference in the tariff setting process); economic regulation may be weak or absent (further, regulatory regimes may preclude the possibility of including debt service in the costs that can be covered by the tariff).	Regulatory risk (e.g., in many developing country contexts there is no regulatory environment for off-grid sanitation, political risk in the case of government procurement contracts, and utilities may not have a mandate to engage in non-sewered sanitation).	Regulatory risk (e.g., change in tariffs if any; private participation in infrastructure).
Technical risks	Due to the long-lived and capital-intensive nature of water and sanitation infrastructure as well as under-investment in maintenance, performance risks may arise due to aging infrastructures, leakage, and obsolescence of technologies. As water distribution infrastructure is underground and services can continue despite high levels of leakage, such degradation can go undetected for years, as rehabilitation and maintenance needs climb significantly.	Performance risk and obsolescence of utilized technology as off-grid sanitation approaches are container-based solutions (CBS), and fecal sludge management (FSM) technologies are relatively new.	Obsolescence of utilized technology given the long-term nature of contracts and multitude of technologies applied.

Environmental/ social risk	Environmental risk (e.g., increasing water scarcity can lead to an increase in the cost of bulk water supply as a result of variability in rainfall and increasing uncertainty about future conditions). Social risks (e.g., particularly for low-income households, relative to tariff increases as a result of major new capital investments).	Environmental risk (e.g., chances of spillages of excreta of container-based solutions (CBS) and onsite sanitation).	Environmental risk (e.g., complex, and costly assessment of Multi-Purpose Water Infrastructures (MPWIs) adherence to environmental standards; variability of availability of water resources due to climate change can reduce the performance of MPWI, for example, hydropower production). Potential negative environmental impacts of large MPWIs, disrupting natural flow regimes that support ecosystem services. Social risk (e.g., the resettlement of households that will be flooded downstream of dams).
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Return

Cash-flow generation	Utilities collect tariffs and other payments (e.g., connection fees) from customers. Tariffs can, but in practice often do not, fully cover operational and maintenance costs and rarely cover capital expenditure. Improvements in operational efficiency can create more cash flow to invest in service expansion and increase the customer base and revenues.	Depending on the off-grid sanitation model, cash flows are generated through the sale of toilets (usually paid monthly), collection fees for waste, from products sold after processing of waste, user fees for toilets, and concession contracts from local governments.	MPWI projects often have quite predictable revenue streams, for example, in the case of electricity generation tariffs or power purchase agreements (PPAs) and large-scale waste treatment plants. Cash flows generated by landscape approaches to delivering water-related services often generate cash flows within actors operating in the spatial area, including by increasing turnover, efficiencies, or reducing costs and expenditures of e.g., bulk water supply.
Developmental return	Improved access to water and sanitation services produces a range of valuable benefits for individuals, communities, and the environment, including a reduction in adverse health outcomes, increased educational attainment (especially for girls), and enhanced labor productivity.	Can reduce levels of open defecation and improve household hygiene, leading to reduced illness. Sanitation services also improve menstrual hygiene management, which, in turn, can reduce dropout rates of girls in school. Effectively managed waste reduces the environmental impact of poorly managed sanitation.	Projects can have a potentially significant economic impact on areas. Landscape-based approaches can improve water management and quality for downstream users.

Project Attributes

Greenfield brownfield vs.	Greenfield projects face additional business or technical risk due to the construction.	Not applicable given the service nature of the subsector.	Greenfield projects face additional business or technical risk due to the construction.
Scalability	Some projects and financing structures could be scaled and replicated, with adaptation to local contexts and institutional structures. Other models present limitations to replication due to specific contextual circumstances.	Off-grid sanitation models can be scaled, particularly if they are seen as complementary to sewered systems and can access a stable revenue source, e.g., a public off-taker. Any replication of a project hence depends on the underlying jurisdiction and context.	MPWI and landscape-based approaches are significantly dependent on the spatial area where they are located, including the actors located in the areas. At the same time, in particular landscape-based approaches such as Water Funds have proven to be scalable and replicable when adapted to the local context.

Size	Depends on whether the water provider serves an urban or rural area. The population density of the service area is a critical factor.	Small-scale direct investment in enterprises.	MPWI are typically large-scale projects run as Special Purpose Vehicles (SPVs). Landscape infrastructure projects tend to be smaller, focusing on a spatial area.
Transaction costs	High given the weak capacity of service providers to maintain an asset registry and sufficient financial and accounting record keeping.	High given the opacity of small businesses, typically with a low level of expertise in financing this sector.	Adapting projects to the local context comes with high project development costs.
Tenor/ Longevity	Minimum average of 15 years of debt financing for sustainable debt service.	Varies, with the need for long-term patient capital to develop and scale business models.	Long tenor of in particular for Multi-Purpose Water Infrastructure (MPWI) public-private partnerships (PPPs), e.g., 20-25 years.

Source: (OECD, 2019^[6])

Annex E. Case studies

Case	Description	Country	Financing Sources	Financing Structure and Instruments used	Potential Impact
Blue Credit Line	Credit line for water and sanitation	Morocco	European Investment Bank, AFD, BMCE Bank of Africa	Credit Line & Technical Assistance	Ten companies benefited from the credit line
Upper Tana-Nairobi Water Fund	Nature Conservancy water funds which connect upstream and downstream communities	Kenya	Water consumers, public and private concessional funding	Payment for ecosystem service	44,725 farmers have implemented conservation activities, 3.4 million trees have been planted, 163 hectares of public forest rehabilitated, and 298 kilometres of riparian buffer lands fully conserved
Bitá Water Project	Improvement of the hydraulic infrastructure of the capital	Angola	International Bank for Reconstruction and Development (World Bank Group)	Guarantee	The total cost of the project (USD 1.1 billion) is secured. It currently benefits 2 million people
Piped-water systems in Benin	Improve the capacity of private sector operators of rural piped water systems	Benin	IFC and WB	PPP	Rehabilitation of ten piped water systems which will benefit 48,500 people.
South Africa's Water Reuse Programme ("WRP")	Operationalise a national water reuse programme (WRP) to transform the country's wastewater system	South Africa	GCF and DFIs	Multiple	In progress
DBSA Programme of the City of Tshwane	Large scale municipal water conservation, water demand management and cost recovery programmes	South Africa	DBSA, Infrastructure Investment Programme of South Africa, Private Investors	Grant, Debt	It is anticipated that the project will reduce water losses in the distribution system, reduce consumption and improve billing and cost recovery rates.

Songwe River Basin Development Programme	Development of integrated industrial irrigation, water supply, and hydropower projects.	Tanzania & Malawi	SIWI, Government of Tanzania, Government of Malawi, African Development Bank, private investors	Grants, Technical Assistance, Debt	In progress
Kafue River Basin	Funding water projects within Kafue River Basin including a wastewater treatment plant	Zambia	The World Wide Fund for Nature (WWF), Government of Zambia, FMO and private sector	Grant	In progress
Kalangala Infrastructure Services	Development of infrastructures services, among which water services are included	Uganda	Emerging Africa Infrastructure Fund (EAIF), InfraCo, PIDG's TAF, GuarantCo, Nedbank.	Equity, guarantee	The water treatment plant increased the capacity of producing water by 400000 litres per day, reducing waterborne diseases in Bugala Island by 80%.
Kigali Bulk Water Supply	Construction of a water treatment plant	Rwanda	Private Infrastructure Development Group (PIDG); Technical Assistance Facility (TAF), Emerging Africa Infrastructure Fund (EAIF), DevCo; African Development Bank	Grants, Technical Assistance, Debt, Equity	Clean water supply to 500 000 inhabitants of Kigali

Source: Authors

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