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Unlocking international finance for water infrastructure in Angola

The impacts of climate change will increase the costs of delivering the infrastructure needed to expand access to water and sanitation across developing countries. It will be important for countries like Angola to access increased levels of climate finance – international finance targeted for climate change activities – to help deliver the crucial infrastructure investments they need. This summary report is intended to help guide policy makers and experts to identify potential sources of international finance for climate-resilient water infrastructure and the ways in which Angola can prepare itself to access this finance.

The report combines the findings from several stand-alone reports that have been produced as part of a study into climate finance for the water sector. The report is structured in four sections:

1. Key sources of international climate finance available to Angola for water infrastructure;
2. Guidance on how to assess a country's readiness for climate finance;
3. A review of how ready Angola is to access this international financing; and
4. Common approaches and tools that have emerged from our overarching research in Angola, Botswana, Namibia, Zambia and Zimbabwe that water institutions can use to make it easier to access climate finance.

Climate change will lead to significant costs and investment needs for Angola, especially in the water sector. Angola's Intended Nationally Determined Contribution (INDC) document outlining the national response to climate change includes plans to support agropastoral communities in southern Angola affected by droughts and natural disasters, and to invest in the water sector through its ongoing Energy and Water Sector Action Plan 2013-17, with total identified investment needs of almost \$30 million.¹ The government's INDC also identified several additional priorities for the water sector that will require up to \$40 million in international financial support, including increasing water availability through wells and boreholes, extending rural water and sanitation networks, and constructing flood protection barriers along major rivers.

¹ Republic of Angola (2015) Intended Nationally Determined Contribution (INDC) of the Republic of Angola

Previous levels of international funding will not be enough to meet these critical water infrastructure investment needs. Angola has received just \$1.1 million over the past decade in development assistance from OECD countries targeted for climate change adaptation in the water and sanitation sector,² compared to the tens of millions needed to fund investments in Angola's INDC. Additionally, while Angola has accessed \$36 million from international climate change funds since 2008, none of this has targeted water infrastructure or increasing resilience in the water sector.³ However, Angola can take advantage of a range of new sources of climate finance to help finance the infrastructure investments it needs.

The Climate Resilient Infrastructure Development Facility (CRIDF) is working to help water institutions and actors access such finance. CRIDF is working in southern Africa to help deliver climate resilient water infrastructure: its mission is to promote peaceful, climate resilient and sustainable planning and management of southern Africa's shared waters, and to generate current and future benefits for the region's poorest.

² OECD (2015) Aid activities targeting Global Environmental Objectives. Retrieved May 26, 2016, from <http://stats.oecd.org/Index.aspx?DataSetCode=RIOMARKERS>

³ Climate Funds Update (2016) Climate Funds Update: The data. Retrieved May 26, 2016, from <http://www.climatefundsupdate.org/data>



1. Climate finance opportunities for water infrastructure

Angola can take advantage of a range of opportunities to fund water infrastructure investments in both the public and the private sector. CRIDF has identified a range of potential sources of climate finance available, broken down by sources available to public sector actors (mostly international publicly-provided funding), and those available to the private sector (including publicly-provided funding and financing from private sector actors, including companies, investment funds and philanthropic foundations).

Key public climate finance opportunities

Of the top 11 sources of climate finance for public sector water infrastructure projects, four are most relevant for Angola: (i) the Green Climate Fund; (ii) the Adaptation Fund; (iii) the Global Climate Change Alliance Plus; and (iv) the African Water Facility.⁴ The levels of funding available, the evidence of support for water projects and the application process for each funding source are summarised below.

	Green Climate Fund (GCF)	Adaptation Fund (AF)
Capitalisation	\$8.8 billion available for new projects (based on current commitments)	\$170 million in pledged funding that is available to new projects, excluding recent new pledges made at COP22 (November 2016).
Support levels	Funding ranges from <\$10 million to >\$250 million per project through range of instruments GCF approved \$1.4 billion in funding in 2016 No Angolan projects funded as of February 2017	Countries eligible for up to \$10 million in grant funding: Angola eligible for full \$10 million Funding available for 'small scale' projects (<\$1 million) or 'regular' projects (>\$1 million)
Support for water	Water security and infrastructure resilience included in GCF's eight strategic impact areas Many water projects supported in first 35 project approvals <ul style="list-style-type: none"> • \$31 million for an Urban Water Supply and Wastewater Management Project in Fiji • \$17 million for the Senegal Integrated Urban Flood Management Project 	'Water management' is one of seven thematic areas, received ~13% of previous funding AF has recently supported water projects in Africa <ul style="list-style-type: none"> • \$7.8 million for Uganda catchment-based water resource management resilience project • \$8.3 million for Northern Ghana resilience through water resources management
Application	Submit projects through 'accredited entities' (incl. UNDP, UNEP, AfDB, DBSA)	Submit proposals through 'accredited' institutions (incl. UNDP, UNEP, AfDB)

⁴ The other seven sources of public climate finance assessed were: the International Climate Initiative; the International Fund of Agricultural Development Adaptation for Smallholder Agriculture Programme; the Pilot Programme for Climate Resilience; the Special Climate Change Fund; the Least Developed Countries Fund; the AfDB ClimDev Special Fund; the African Union-NEPAD Climate Change Fund.

	Global Climate Change Alliance Plus (GCCA+)	African Water Facility (AWF)
Capitalisation	€326 million in capitalisation as of October 2016	Has mobilised €150 million cumulatively
Support levels	Funding ranges from €2 million to €15 million No Angola projects funded as of November 2016	Provides grants between €50,000 and €5 million No Angola projects funded as of November 2016
Support for water	Supports sector-based climate change adaptation (and mitigation) strategies and increased resilience to climate stress and shocks, including water projects <ul style="list-style-type: none"> • €3 million for Djibouti sectoral climate change plans for energy and water sectors 	Primary aim is mobilising investments for water infrastructure projects in Africa Several Southern Africa projects supported <ul style="list-style-type: none"> • \$1.6 million for Zambian study on upscaling smallholder irrigation • €1.6 million for improving Mozambique's climate resilience and reducing flood vulnerability • €2 million to rehabilitate Zimbabwe's Chitungwiza municipal water supply and sanitation
Application	Least Developed Countries (LDCs) eligible for funding Express interest through EU Delegation to Angola	Submit projects directly to AWF Not currently accepting grant applications – but CRIDF has an established relationship with AWF and may be able to facilitate access to future finance.



Key private climate finance opportunities

Of 13 different potential sources of climate finance to support private sector investments in resilient water infrastructure, the opportunities most relevant to Angola are: (i) Private philanthropic foundations; (ii) Corporate Social Responsibility (CSR) funding; (iii) International climate funds; and (iv) Multilateral and regional development finance institutions (DFIs).⁵ These opportunities are summarised below.

Private philanthropic foundations		Corporate Social Responsibility (CSR) funding
Support for water	Private grant funding flows increased 100% from 2000 to 2009, reaching at least \$22 billion \$87 million for water, sanitation and health (WASH) projects in 2015	Many companies invest through corporate foundations and CSR funds \$187 million for WASH projects between 2011 and 2015
Key targets	Rockefeller Foundation has a specific mandate for climate resilience in the water sector, has supported initiatives including Global Resilience Partnership (GRP), the Fresh Water Initiative and the National Disaster Resilience Competition Some foundations support partnership platforms for water resilience Howard G. Buffett Foundation supports the Global Water Initiative (not yet active in SADC) Most other funders of water projects do not explicitly consider climate change resilience	A number of foundations are closely aligned with making water infrastructure more resilient Coca-Cola Africa Foundation – supported two projects in Angola through ‘Replenish Africa Initiative’ to improve water access <ul style="list-style-type: none"> • HSBC Water Programme – supported water resource management in Tanzania, Kenya • Diageo Foundation – provided charitable grants to community groups and NGOs in South Africa through ‘Water for Life’ programme
International climate funds		Multilateral and regional development finance institutions (DFIs)
Support for water	Private sector ‘windows’, ‘facilities’ and ‘set asides’ provide dedicated support for private sector actors Scale of support is variable, depends on international fund	Responsible for almost half of all public climate finance directed to the private sector for adaptation activities in 2014 Over \$250 million in private adaptation finance for water infrastructure projects from MDBs between 2013 and 2015
Key targets	GCF Private Sector Facility (PSF) is key target for Angola Potential to offer support at very large scales, though no funding yet provided through PSF Almost \$600 million for five private sector projects provided through standard procedures Four private accredited entities (Acumen Fund, HSBC, Deutsche Bank, Crédit Agricole Corporate and Investment Bank) can implement projects, access funding directly	World Bank Group’s International Finance Corporation (IFC) is active in funding private sector adaptation projects Group aims to raise \$16 billion for adaptation investments in Sub-Saharan Africa by 2020 African Development Bank (AfDB) prioritises infrastructure development <ul style="list-style-type: none"> • Over \$550 million for (public and private) water and sanitation investments in 2015 • 90% of water sector projects to address climate change by 2020

⁵ The other nine sources of private climate finance assessed were: Company investments to support their operations; Impact investors; Private equity funds; Project preparation facilities (PPFs); Public infrastructure funds; International aid organisations; Dedicated water financing funds; Challenge funds; Environment funds.

2. How to assess climate finance readiness

What is 'climate finance readiness'?

Accessing climate finance can be challenging, and requires a set of institutional and practical systems as well as several key skills and competencies – collectively termed 'climate finance readiness'. CRIDF has developed a set of guidelines to help institutions assess how well they are placed to access and use climate finance resources. It has also applied this readiness assessment in Angola to provide an initial assessment of key constraints and how institutions, and their partners, can start to address these issues.

There are three key pillars for institutional readiness for accessing and using climate finance to support climate resilient water infrastructure investments. These areas have been identified based on several international studies on accessing climate finance and on CRIDF's experiences assessing climate finance readiness across southern Africa. They include an emphasis on the types of institutions that aim to develop climate resilient water infrastructure and the types of activities they implement, such as project and programme preparation. The three pillars are:

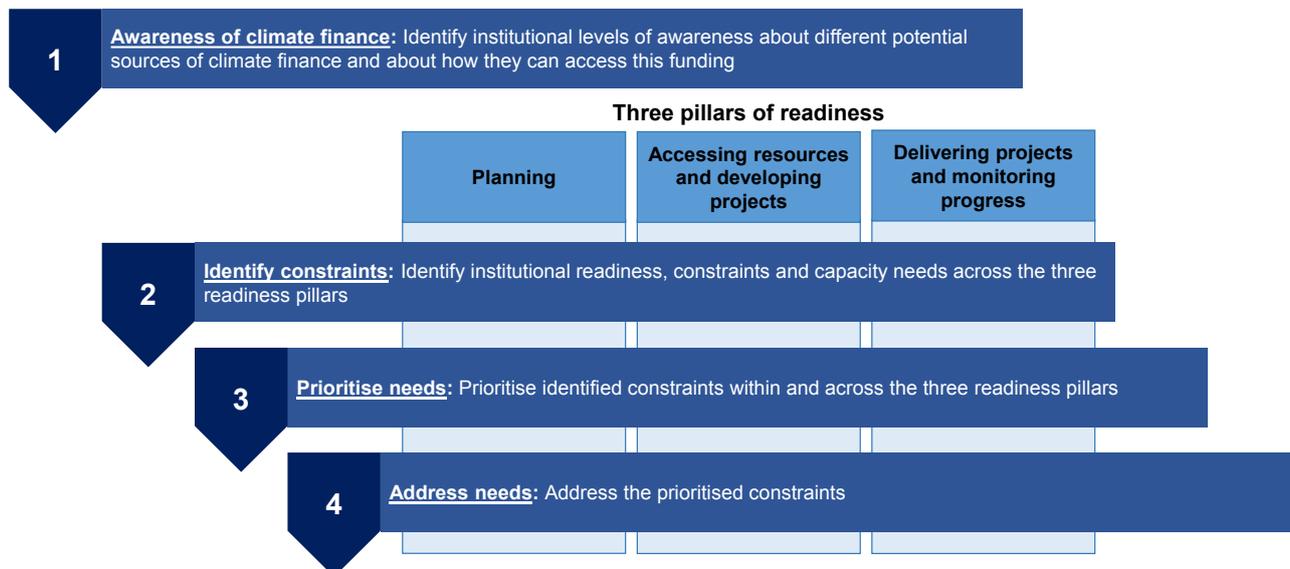
- 1. Planning:** Institutions need to be able to identify and plan projects that align with the eligibility criteria of different climate finance providers, need to be able to assess investment needs and priorities, and need to be able to factor climate finance opportunities into planning cycles and budget decisions.
- 2. Accessing resources and developing projects:** Organisations need to be able to access the financial resources in practice, which includes understanding and having access to entry points to funders, as well as being able to technically develop the projects and programmes that are seeking funding and to present these to funders effectively.
- 3. Delivering projects and monitoring progress:** Funders typically want institutions to show they possess the capacities and skills required to implement (or oversee the implementation of) projects, as well as the capacity to monitor and report on the effectiveness of their investments.

Good performance in these pillars indicates that institutions are well placed to access climate finance – though not all organisations will need to focus on all areas. Different organisations have different roles, and so some areas of readiness may not apply to them. Additionally, doing well in these pillars is not necessarily sufficient (or always required) to access climate finance, but good performance certainly indicates that organisations are in a strong position to do so.

How is climate finance readiness assessed?

There are four key steps to assess an institution's climate finance readiness, as highlighted in Figure 1 and discussed in greater detail below.

Figure 1. The Process to Assess Climate Finance Readiness



Step 1. Identify institutional levels of awareness about different potential sources of climate finance and about how they can access this funding

It is first important for institutions to assess their level of awareness and information about different potential sources of climate finance, and the different 'pathways' to accessing those funds. An important part of assessing this is understanding what role the individual institution plays in the infrastructure development process, both for understanding where they fit in the pathway to accessing climate finance (for example, who they need to partner with to access funds) and for understanding which pillars of readiness they should focus on in the main readiness assessment.

Step 2. Identify institutional readiness, constraints and capacity needs across the three readiness pillars

For each of the three pillars, there is a set of key questions that institutions can ask to help assess their current level of readiness, the key constraints they face, and where they may need to develop their capacity and skills. These questions are not exhaustive, but highlight the key issues organisations need to consider in each of the pillars.

Planning

Does the institution understand its mandate and role in the context of accessing finance from funds such as the GCF and AF?

Are there robust, transparent procedures for identifying projects and programmes?

How does the institution ensure alignment with sectoral policies and strategy documents?

Does the institution identify funding shortfalls, and have the capacity to regularly assess and identify the relevant sources of finance to meet these shortfalls?

Is climate change mainstreamed into projects, plans and programmes?

Is there technical and staffing capacity to integrate climate change into project identification and design?

Accessing resources and developing projects

Is there awareness on the various sources of finance (including but not limited to climate finance) and funders' requirements for accessing resources?

Is there sufficient understanding of national pathways to access climate finance?

Is there a working relationship between the institution and accredited institutions, financial institutions and international climate finance focal points for international climate finance?

Does the institution understand and meet the requirements of international climate funds, including the ability to package bankable project proposals and create a project pipeline?

Does the organisation understand the potential financial instruments available and can it identify appropriate financial instruments when packaging proposals?

Delivering projects and monitoring progress

Is there local capacity to manage and oversee the execution of approved proposals and prioritised projects?

Is there a sectoral or national monitoring and evaluation (M&E) system, and to what extent does the institution have the capacity to report progress, delivery and implementation in line with M&E systems where applicable?

Step 3. Prioritise identified constraints within and across the three readiness pillars

It is important to prioritise which issues institutions address since they may have limited resources to address different constraints to accessing finance. Organisations can apply several key criteria to think critically about the importance of different challenges they face. While different issues matter to different organisations, and organisations may put different weight on different areas, there are a few key prioritisation questions institutions can consider:

- How much time and resources would be needed to address the constraint?
- Can the institution address the constraint on its own, or does addressing it require cooperation with or input from other organisations?
- Would addressing the constraint have a big or small impact on overall readiness?
- Is the constraint something the institution can address, or is it a constraint that another organisation in the institution's pathway to accessing finance is better placed to address?

Step 4. Address the prioritised constraints

The final step of the process is to identify the specific actions needed to address the constraints identified and prioritised in steps two and three. While responses to constraints will differ for different organisations based on their unique readiness positions and their mandates, institutions can apply a common framework to help determine what action is needed:

- **Identify the scale of the action(s) needed:** Determine the number and extent of the required actions needed, including assessing whether additional information, detailed studies or assessments are required to address these constraints.
- **Quantify the resources needed:** Assess the level of technical support (such as inputs from experts or partners) and financial resources needed implement actions.
- **Identify potential sources of funding and partnership to help address constraints:** Consider different sources of funding and different potential partners that could help in addressing constraints, including Project Preparation Facilities such as CRIDF and the Africa Water Facility, and international partners that have supported climate finance applications like UNDP.



3. How ready is Angola for climate finance?

The guidelines presented above were used to undertake a Climate Finance Readiness Assessment of Angola, specifically related to its ability to access climate finance for water infrastructure. The study was undertaken through a desk top assessment, complemented by engagement with key stakeholders in the water and climate sectors.

Angola faces significant challenges in the water and sanitation sector due to its emerging from a protracted civil war. These include rebuilding damaged or dilapidated infrastructure, updating policies and approaches, enhancing professional and technical skills, ensuring transparent and equitable service delivery, strengthening planning and performance monitoring and increasing effective coordination across all levels, stakeholders and regions

Angola's water sector has recently updated its institutional arrangements to improve the effectiveness of water resource management and the provision of sanitation. The Ministry of Energy and Water (MINEA) is the lead agency for water supply in Angola, and the Ministry of Environment (MINAMB) is the lead agency for the provision of sanitation. The National Water Resource Institute is responsible for the planning of water resources.

The findings of this assessment and actions to increase the country's ability to access finance are presented below.

Planning

While climate policy in Angola is in a relatively early phase, there is growing recognition of the need to integrate climate change into national development planning.

The National Climate Change unit within MINAMB is currently developing the 2018-2030 National Climate Change Strategy, although Angola has not yet drafted its Climate Action Plan. The strategy will identify the barriers to addressing climate change, the necessary coordinating structures, and will address establishing an enabling environment for accessing climate finance. The strategy will also set out national priorities for climate change action in Angola.

Angola needs to advance the implementation of the National Water Master Plan (2017), while also building on existing coordination between water and other key water-related institutions.

The recently approved National Water Master Plan (2017) defines the planning scenarios and the short, medium and long term measures and actions for the water sector in Angola. The financial programming for the implementation of the NWP is estimated at \$110 billion with a time horizon to 2040. Although efforts are underway to improve the coordination and institutional capacities of Angolan water institutions, such as the Water Sector Institutional Development Project (PDISA), there is limited technical and staffing capacity to integrate climate change into the planning and development of water infrastructure. This is compounded by a lack of water resource data and usage information that is necessary for effective and efficient planning. Support could be provided to on-going efforts, such as PDISA, particularly as it pertains to understanding the importance of climate-proofing water infrastructure, research and development and the technical skills required to carry these tasks out.

Angola nominated the MINAMB as their GCF National Designated Authority (NDA), and is awaiting approval from the GCF.

MINAMB will require support from within Government, the private sector and public sector and/or international partners to build its capacity to fulfil its role as the NDA. The NDA could seek readiness assistance from the GCF to support the NDA in clarifying its newly appointed role, build a country project pipeline and GCF strategy as well as to establish communication with other key ministries and departments in this regard. Additional support provided by cooperating partners could complement readiness activities undertaken by the NDA. The NDA could direct its efforts and external support toward enhancing coordination and communication between the NDA and existing entities such as the Inter-Ministerial Committee on Climate Change and Biodiversity, as well as with transboundary River Basin Organisations (RBOs) such as OKACOM and KAZA. The NDA may also value support in identifying climate resilient water projects to be incorporated into the Angolan GCF project pipeline.

Accessing resources and developing projects

There is limited awareness among some Angolan institutions of climate finance sources, and low understanding of the processes and respective criteria for developing bankable project proposals.

Angolan water institutions currently possess limited knowledge about the range of climate finance opportunities, and about how to access funding from such sources in practice. Angola is open to bilateral and multilateral loans as well as co-financing of projects or programmes for water infrastructure development, as evidenced by current loans from the African Development Bank (AfDB) and the World Bank (WB). MINAMB and the Ministry of Finance could improve the broader awareness of such opportunities by communicating sources of climate finance across different sectors, and by incorporating these considerations when blending finance for existing and planned water infrastructure development. Development partner support could be provided to assist MINAMB and the Ministry of Finance in these efforts.

Angola does not have any national entities accredited to key international climate funds, and has not yet started this process.

Angola has relied on international actors to access the Green Climate Fund, the Adaptation Fund and the Global Environment Fund since it does not have any nationally accredited organisations. Angola relied extensively on UNDP for all phases of project preparation to access Global Environment Facility (GEF) funding. This highlights capacity constraints for developing bankable project proposals, and the need to build in-house capacity in MINAMB and MINEA for all phases of the project preparation cycle. In addition, Angola has yet to start the process of nominating a national entity for accreditation to the GCF or other international climate funds, with there being no current institutions identified for accreditation considerations. The NDA may particularly value support in advertising a Request for Proposals (RFP) for national institutions seeking accreditation, as well as the eventual vetting of these entities.

Delivering projects and monitoring progress

The limited availability of technical expertise to deliver projects within water institutions and reliance on support from international consultants indicates that project implementation is a key challenge.

Stakeholders noted a lack of domestic capacity to deliver projects, and also noted that current expertise, such as civil engineers and project managers, are concentrated in the capital, Luanda, resulting in limited staffing and skills capacity elsewhere in the country. This has further compounded the reliance on international consultants to conduct work outside of Luanda and was noted as a major constraint to delivering water infrastructure in general. Training support, such as the EU and UNICEF funded training programme set to start in 2017 that aims to train 2500 government employees in the water sector, could help Angolan institutions in addressing this constraint. Development partner support could help in mainstreaming climate change into the planned training programme.

Angola is yet to establish a sector-wide M&E system for the water sector.

However, there are discussions between MINAMB and the Ministry of Finance about expanding a Project Management and M&E unit for environmental projects within MINAMB into a sector wide M&E system. Support from water-related institutions, including government entities, transboundary water commissions, cooperating partners and private sector, could assist MINAMB and the Ministry of Finance with upgrading the existing Project Management and M&E unit.

Recommendations

Addressing these constraints will require improved understanding of the challenge that climate change poses to water infrastructure, and the importance of climate-proofing water infrastructure.

This could be supported through greater coordination and development of water-related climate research as well as building hydrological monitoring capacity in key basins, and improving technical skills for identifying key projects, for integrating climate change into project design, and for appraising the climate change components of water infrastructure proposals.

4. Approaches to help Angola access finance

As Angola's water institutions and actors develop projects, there are several approaches and tools that could be used to increase the likelihood of accessing climate finance. There are three key areas of focus to ensure that projects are effective at addressing climate change and, importantly, make them more likely to successfully attract climate finance.

1. Consider climate finance opportunities for projects at an early stage

Consider the potential climate finance opportunities associated with projects at the selection stage to ensure projects put forwards to climate funds are those most likely to secure funding.

Select and develop projects that are aligned with the criteria or outcomes funders are looking for from projects, such as a focus on certain themes or regions, paying special attention to large funders or those most likely to support water projects in Angola.

Make sure that any standard tools used in project development easily provide the information needed to support applications for funding, to make the process of applying for funding easier and quicker.

2. Ensure there is a strong link between climate resilience and project development

Use national and regional assessments of climate risks and economic development paths to guide project selection so that projects are clearly aligned with country priorities and climate resilience.

Apply sectoral climate change risk assessment approaches when selecting projects to identify the key risks associated with certain types of projects.

Feed the information from assessments of climate risks to projects into their design, and document these risks and responses clearly to help communicate the resilience benefits of projects to funders.

3. Design economic appraisal tools to support climate finance access

Use economic appraisal techniques – like cost benefit analysis (CBA) – to help guide project development decisions, and make sure they are used early enough to guide the design of projects.

Incorporate the impacts of climate change into economic appraisals, and calculate how projects respond to or manage climate change issues, to help communicate the value of the project to funders.

Consider using new tools for making decisions under uncertainty, as traditional economic appraisal tools like CBA may not be effective when future climate change is very uncertain (such as when the probability or scale of different outcomes are not known).

Angola's water institutions may also wish to seek support in developing projects from dedicated project preparation facilities, such as CRIDF. These institutions' experiences in developing projects and facilitating access to finance may be particularly helpful in supporting the design of larger projects.

Disclaimer

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