

# MOZAMBIQUE



## NDC IMPLEMENTATION IN MOZAMBIQUE THROUGH GREEN INVESTMENTS BY PRIVATE SECTOR

A SCOPING STUDY

MARCH 2021







# **NDC IMPLEMENTATION IN MOZAMBIQUE THROUGH GREEN INVESTMENTS BY PRIVATE SECTOR**

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**The African Development Bank**

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## FOREWORD

In 2015, the Paris Agreement on Climate Change brought all nations together into a common cause to undertake ambitious efforts to combat climate change and adapt to its effects. The Agreement mandates signatory countries to commit to keep global warming below 2°C through the submission of Nationally Determined Contributions (NDCs).

To date, 54 African countries have committed to implement measures that mitigate GHG emissions and enhance adaptation amounting to an estimated cost of US 1.2 trillion by 2030. It is expected that 75% of this resource requirement will be fulfilled by private capital. Although private capital is the largest contributor to climate finance globally, private sector investment in climate action in African countries requires strengthening and directing towards opportunities for investment in industries and technologies that are traditionally well understood as well as those that are emergent and require innovation (e.g. adaptation and resilience). The need to engage national private sector actors is of particular significance.

Mozambique is one of the most vulnerable countries to climate change in Africa. The country continues to experience recurrent drought, flood and cyclonic events that are increasing in intensity; without accounting for the devastating impacts of the most recent cyclones, Idai and Kenneth, the country has lost an average of \$100m worth of infrastructure investment and revenue from productive activities annually over the last 15 years. Thus, due to the devastating impact of adverse climatic events, the country

has struggled to maintain and expand its infrastructure. Moreover, over the past four years, the economic growth rate have dropped due to the interplay between climatic shocks and macroeconomic outlook. This, combined with the difficult debt situation that the country is facing and the impact of the COVID pandemic, means that public resources that can be invested in climate mitigation and adaptation are increasingly scarce, and attracting and harnessing private capital must be a significant part of the NDC implementation strategy.

Mozambique ratified the Paris Agreement and submitted its first NDC in 2018. The NDC articulates ambition for both adaptation and mitigation action and is conditional upon the provision of the means of implementation by the international community. Investments in the sectors of infrastructure and agriculture are particularly crucial to enhancing resilience to climate change risks. From a micro-level perspective, adaptive design should be included in infrastructures while innovative technologies and techniques should be adopted in the field of agriculture. The country needs a comprehensive climate financing framework to finance directly green investments and priority disaster management initiatives. Important steps in this direction have been undertaken with the establishment of a Disaster Management Fund, but more needs to be done to respond to the significant climate risk faced by the country.

The Bank supported Mozambique to implement climate action for over a decade. Action has included the implementation of projects



co-financed by the Pilot Programme for Climate Resilience; the lessons learned from these projects are being integrated in the design of new operations in the Agriculture sector. Facilitating the transition to inclusive and green growth are the twin objectives of the Bank's Long-Term Strategy (2013-2022). While supporting the implementation of NDCs is an objective of the Bank Climate Change Action Plan (2015 -2015), of which leveraging climate finance is a pillar. This strategic framework informs the design of our programmes and Country Investment Strategies. The Country Strategy paper for Mozambique is particularly innovative as it places Green Growth and climate change at the heart of its ambition for sustainable development.

We are delighted that Mozambique has participated under the Private Sector Investment Initiative for NDCs financed by the Fund for Africa Private Sector Assistance (FAPA).

The intervention is timely as it will help the country leverage its burgeoning private sector to contribute to NDC implementation. We believe that this initiative will strengthen the capacity of private sector to identify and invest in profitable climate-smart business ventures and to protect their businesses from climate risks. We look forward to working with our partners in taking forward the opportunities identified in this report. We are very grateful for the partnership with Stantec to enhance private sector investment in climate action.

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**African Development Bank**  
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## LIST OF ACRONYMS

<b>AFD</b>	French Development Agency	<b>GEF</b>	Global Environment Fund
<b>AfDB</b>	The African Development Bank	<b>GGGI</b>	Global Green Growth Institute
<b>AFOLU</b>	Agriculture Forestry and Other Land Use	<b>GHG</b>	Green House Gas
<b>AIAS</b>	Management of Infrastructure, Water and Sanitation	<b>GIIMC</b>	the Inter-institutional Group
<b>ANMM</b>	National Association of Municipalities in Mozambique	<b>GIRH</b>	Integrated Water Resources Management
<b>ARENE</b>	Energy Regulatory Authority	<b>GoM</b>	Government of Mozambique
<b>BAF</b>	Blue Action Fund	<b>HEIs</b>	Higher Education Institutions
<b>BURs</b>	Biennial update reports	<b>IDEPA</b>	Fisheries and Aquaculture Development Institute
<b>CC</b>	Climate Change	<b>INGC</b>	National Institute for Disasters Management
<b>CCAP2</b>	Climate Change Action Plan (2016-2020)	<b>INP</b>	National Petroleum Institute
<b>CCUs</b>	Climate Change Units	<b>LDC</b>	Least Developed Countries
<b>CENOE</b>	National emergency operation centers	<b>M</b>	Million
<b>CERUM</b>	Multiple use and resource centers	<b>MADER</b>	Ministry of Agriculture and Rural Development
<b>CMM</b>	Municipality Council of Maputo	<b>MAEFP</b>	Ministry State Administration and Public Function
<b>CNG</b>	Compressed Natural Gas	<b>MCM</b>	Municipality of Maputo City
<b>CO<sub>2</sub></b>	Carbon dioxide	<b>MDG</b>	UN Millennium Development Goals
<b>COP 3</b>	The 3 <sup>rd</sup> Conference of the Parties	<b>MEF</b>	Ministry of Economy and Finances
<b>COVID19</b>	Corona Virus Disease 2019	<b>MIREME</b>	Ministry of Mineral Resources and energy
<b>CRA</b>	Council for Water Supply	<b>MOPHRH</b>	Ministry of Public Works, Housing and Water Resources
<b>DNA</b>	Designated National Authority	<b>MozBio</b>	Mozambique Conservation Project
<b>DNGRH</b>	National Directorate for Water Resources Management	<b>MOZFIP</b>	Mozambique Forest Investment Project
<b>DOH</b>	Department of Hydraulic Works	<b>MTA</b>	Ministry of Land and Environment
<b>ENAMMC</b>	National Strategy for Adaptation and Mitigation of Climate Change	<b>MTC</b>	Ministry of Transport and Communication
<b>ENDE</b>	National Development Strategy	<b>MtCO<sub>2</sub>eq</b>	Metric tons of carbon dioxide equivalent
<b>ENH</b>	National Hydrocarbon Company	<b>MRV</b>	Monitoring and Reporting Verification
<b>FFH</b>	Housing Development fund		
<b>FNDS</b>	National Fund for Sustainable Development		
<b>FUNAE</b>	Energy Fund		
<b>GCF</b>	The Green Climate Fund		
<b>GDP</b>	Gross Domestic Product		



<b>MSW</b>	Municipality Solid Waste	<b>SADC</b>	Strategic Indicative Plan of the Southern African Development Community
<b>NAMA</b>	National Appropriate Mitigation Actions	<b>SDAE</b>	District Service of Economic Activities
<b>NDCs</b>	Nationally determined contributions	<b>SDGs</b>	Sustainable Development Goals
<b>NDCOP</b>	Nationally determined contributions Operationalization	<b>SDPI</b>	District Service for Planning and Infrastructure
<b>NG</b>	Natural Gas	<b>SIDS</b>	Small Island Developing States
<b>OE</b>	State Budget	<b>SMEs</b>	Small and medium enterprises
<b>PACA</b>	Community Adaptation Action Plan	<b>TNA</b>	Technology Needs Assessment
<b>PETROMOC</b>	Oil Mozambique	<b>UNEP</b>	United Nations Environment Programme
<b>Ppm</b>	Parts per million	<b>UNFCCC</b>	United Nations Convention on Climate Change
<b>PPP</b>	Public-Private Partnership	<b>UTIP</b>	Technical Unit for Implementation of Hydroelectric Projects
<b>REDD+</b>	Reducing Emissions from Deforestation and Forest Degradation	<b>WFP</b>	World Food Programme
<b>RMCs</b>	Regional Member Countries	\$	United States Dollar
<b>RWSSI</b>	Rural Water Supply and Sanitation		



## EXECUTIVE SUMMARY

Climate change impacts and disasters are affecting Mozambique's social and economic sectors. The country is highly vulnerable to climate risks (ranked as 1<sup>st</sup> country in 2017 in most exposed to risks emanating from climate change<sup>1</sup>), with low coping capacity and limited readiness to address the shocks. The country's per capita CO<sub>2</sub> emissions at 0.1 tonnes per year are lower than the average of low-income countries in general (0.3 tonnes). The cost of implementing climate action is estimated as 450 million \$ per year<sup>2</sup>. These actions are mostly for adaptation which are included in its climate change policies and strategies. In 2012, Mozambique developed its National Climate Change Adaptation and Mitigation Strategy 2013-2025 (NCCAMS), while it ratified the Paris Agreement and submitted its first Nationally Determined Contributions (NDCs)<sup>3</sup> in 2018.

The NCCAMS identifies adaptation and the reduction of climate risk as a national priority and presents eight strategic actions aimed at enhancing resilience and reducing vulnerability to climate risk at community, ecosystem and national economy. With regards to mitigation, actions prioritised include forestry measures, developing low-carbon agricultural practices, and reducing deforestation and wildfires. The NCCAMS also identifies a set of key cross cutting actions including (i) institutional and legal reform, (ii) research and systematic observation (iii) and capacity building and technology transfer. These actions aim to facilitate Mozambique's transition to a low-carbon and climate resilient economy<sup>4</sup>.

The country's main development challenge is the pervasive poverty and inequality, notably in rural areas where most of the population live, dependent on subsistence agriculture and disconnected from the centres of growth – and often from electricity, as only 30% of the population has access to electricity and relies on biomass to meet domestic energy needs. It is necessary to accelerate the country's structural transformation and industrialization, reduce the business transactions costs and address the skill gaps, building on its vast natural resource potentials, in order to generate jobs, particularly in the rural areas. The agriculture sector is a major employer, but it is characterized by subsistence farming with very low productivity. To achieve the climate change and developing goals, the private sector must play a more significant role. The sector is dominated by individual entrepreneurs, formally registered SMEs and informal SMEs which are mostly micro-enterprises. Factor productivity is low, and value addition is limited, both in manufacturing and agriculture.

<sup>1</sup> Global Climate Risk Index, Germanwatch, 2017

<sup>2</sup> Climate Investment Fund, 2012

<sup>3</sup> Mozambique presented, in February 2018, its intended Nationally Determined Contributions (NDCs), as per UNFCCC (2015) "Adoption of the Paris Agreement"

<sup>4</sup> Nationally Determined Contributions (NDCs), Mozambique 2018



Agro-business activities are generally constrained by high transportation costs due to poor infrastructure, including low access to energy, inefficient ports, increased costs, and costly business environment (tax, limited transparency in procedures, administrative costs, etc.).

The private sector in Mozambique is not well engaged in climate change projects mainly due to the low level of knowledge about climate issues and the development of bankable green projects. On the other a suitable enabling environment needs to be created to enable national private sector actors to successfully access green funds, among others.

Addressing both physical infrastructure constraints that can foster productivity, competitiveness and access to markets, as well as legal and regulatory reforms, coupled with the provision of a skilled and adequately trained workforce is critical to enable the progressive structural transformation and diversification of the economy while addressing the climate change risks facing the country.



## 1. INTRODUCTION

Mozambique is facing a range of climate change related impacts, the most recent and devastating being the Cyclones Idai and Kenneth in 2019, cyclone Chalane in 2020 and cyclone Elois in 2021 , which caused an unprecedented amount of damage. Also, the country is facing security issues, lack of basic infrastructure, corruption issues and heavy debts, among others. All these factors challenge progress towards Sustainable Development.

Nationally determined contributions (NDCs) are at the heart of the Paris Agreement and Mozambique ratified the Agreement and submitted its first NDCs in 2018. Based on current policy actions and programmes, the country estimates, on a preliminary basis, a total reduction of 76.5 MtCO<sub>2</sub>eq during the period 2020 to 2030, with 23.0 MtCO<sub>2</sub>eq achieved by 2024 and 53.4 MtCO<sub>2</sub>eq from 2025 to 2030. These reductions are estimates with a significant level of uncertainty and will be updated<sup>5</sup>. To achieve these mitigation targets, Mozambique aims to reduce GHG emissions by identifying and developing low-emission options for energy generation, distribution and transmission. The country also aims to scale-up and implement the National REDD+ strategy, having the agriculture-forestry-land-use (AFOLU) sectors as the largest source of GHG emissions nationally. Considering the waste management sector, Mozambique plans to establish two solid waste landfills. Besides the implementation of a revised strategy for integrated management of urban waste, the country is targeting recovery of methane gas from these landfills. The transport sector is also a significant emissions source. For this reason, national priorities include measures to increase sustainability by integrating improved urban transport solutions including public-mass-transit systems in urban areas. The implementation of the above-mentioned strategies is conditional upon provision of means of implementation such as finance, technology and capacity building.

Mozambique plans to increase the awareness, capacity and the level of stakeholder coordination from local to institutional levels as adaptation strategy. At an institutional level, Mozambique will increase its investments in monitoring and research for climate change impacts and strengthen the national mechanisms for early warning. Among other measures, adaptation in AFOLU will require additional investments for food security and nutrition. It will demand increased protection and management of biologically diverse areas and natural resources, and sustainable management of soils to avoid degradation. In the water sector, actions include improvement of the national capacity for integrated water resources management, as well as the construction of climate-resilient water infrastructures. Implementation of adaptation actions is also conditional upon provision of the necessary means of implementation.

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<sup>5</sup> Nationally Determined Contributions (NDCs), Mozambique 2018



The country NDCs also call attention to the gaps and barriers to achieving the goals listed above. Among them are the low-level of public investment and private sector participation in the implementation of climate action. Mozambique's national private sector is still developing, contributing just 65% to the GDP, and characterized by low productivity and competitiveness. Most of private sector players are in services sector, which accounts for 52.2% of total GDP, mainly in the subsectors of trade, transport, electrical and mechanical workshops, and carpentries, construction, among others. Extractive industries increased from 1.0% in 1991 to 7.8% of the GDP in 2019, increasing the value of its production by 45 times in the period. Agriculture, cattle farming and fishing subsectors have their significant share as well, particularly in rural areas.

Within this context, this report aims to identify the opportunities, challenges, and modalities for scaling-up NDC implementation in Mozambique, as there is urgent need to improve the flow of both private and public sector capital into mitigation and adaptation projects on-the-ground and at scale. Until now, these activities have been undertaken almost exclusively by governmental and public sector institutions.



## 2. OBJECTIVES

### 2.1 General Objective

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This study assesses the context of private sector involvement in the development, financing and implementation of climate change initiatives in Mozambique. It provides information that will serve as basis for the private sector to access financing for NDC implementation in Mozambique.

### 2.2 Specific Objectives

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The study undertakes a gap analysis on the key investment and implementation challenges and opportunities for the private sector in the following 7 sectors:

1. Climate-smart Agribusiness and AFOLU.
2. Transport and Infrastructure.
3. Green buildings and Smart Cities.
4. Renewable Energy and Energy Efficiency.
5. Waste Management.
6. Water and Irrigation and
7. Financial Sector.



## 3. METHODOLOGY

### 3.1 Data collection and analysis

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Data for this study was collected from primary and secondary sources. Primary data collection was mostly through electronic means due to the constraints posed by the COVID-19 pandemic situation. Contact with stakeholders was made using phone calls, emails as well as consultations via various online platforms.

Additional information was gathered in relevant webinars on climate-related topics which occurred during the development and consultation phases of the report. The responses from stakeholders as well as additional documentation provided by them were triangulated and included in the relevant sections of the report.

The stakeholders approached for this study included staff from the former Ministry of Land, Environment and Rural Development (MITADER), now Ministry of Land and Environment (MTA), responsible for climate change initiatives including the UNFCCC Focal Point (Mrs Marilia Telma Manjate). In the Ministry of Economy and Finances interviews were held with Mrs Sonia da Silveira, Adviser of the Designated National Authority (DNA) for the Green Climate Fund (GCF), and Mrs Anacleta Chiangua Officer of the Designated National Authority (DNA) for the Green Climate Fund (GCF).

At the National Fund for Sustainable Development (FNDS), now in the Ministry of Agriculture and Rural Development (MADER), interviews were held with Mrs Tania Jamisse Paco, Project Management Coordinator at FNDS. At the Energy Department, interviews were with Mrs Marcelina Andre Mataveia, Deputy National Director of Energy (DNE) and Mr Antonio Osvaldo Saide, CEO of the Energy Fund (FUNAE), both institutions are under the Ministry of Mineral Resources and Energy (MIREME). From the side of the National Institute of Disasters Management (INGC) in the Ministry of State Administration and Public Function (MAEFP), the Coordination Director, Mr Bonifacio Antonio, was interviewed.

Secondary sources included national climate change and development policy documents, working papers and scientific literature. These documents were sourced from the web sites of governmental institutions, non-governmental organizations, private sector, research and education institutions and bilateral and multilateral donor organizations operating in Mozambique. For national documents specifically, the following documents among others were accessed:

- National Climate Change Adaptation and Mitigation Strategy 2013-2030;
- National Development Strategy (ENDE) for the period 2015-2035;
- Master Plan for Disaster Risk Reduction for the period 2017-2030;
- Mozambique NDC 2015;



- Mozambique NDC operationalization plan for 2020-2025;
- Five Year National Development Plans (PQG);
- Strategy and Action Plan for Conservation of Biological Diversity in Mozambique (2015-2035);
- Green Economy Action Plan;
- Sectoral Plans.

### **3.2 Limitation of the study**

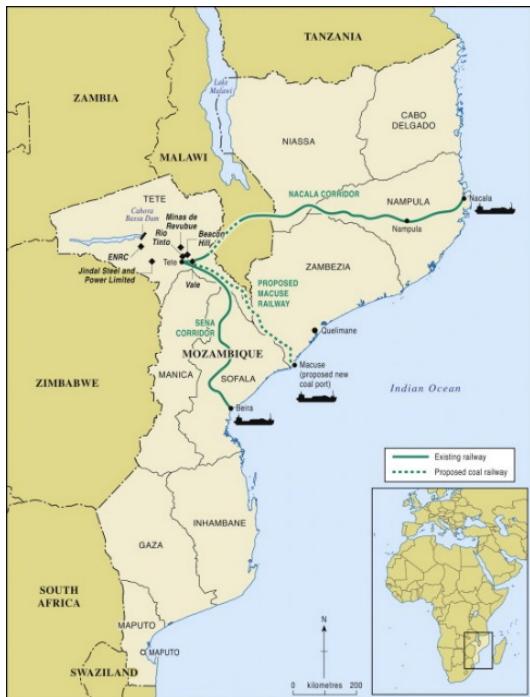
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Workshops and in-country consultations were planned for March 2020, but due to the global COVID-19 crisis, such interviews took place via conference calls and e-mail exchanges. This situation also shifted the country priorities and stakeholders' availability. Due to covid-19, the Government of Mozambique declared a state of emergency with effect from 1<sup>st</sup> April 2020. During that period the country experienced a significant reduction of activities, with most of the activities undertaken from home, as very few people could go to their workplace. This applied to both public and private sectors actors. The state of emergency has been renewed 4 times for periods of one month, meaning that to-date the country remains under emergency measures. Another factor that can be classified as a limitation for this study is the limited data and lack of comprehensive reports related to climate change issues. Additionally, data on private sector, including the type of actors, their level of participation in different activities and the level of investments was not enough. The available information is spread over different institutions and in many cases over different departments of the same institution.



## 4. COUNTRY CONTEXT

### 4.1 Brief country context



Mozambique is located on the south-eastern side of the Indian Ocean, bordering with Tanzania in the North; Malawi, Zambia, and Zimbabwe in the West; and with Eswatini and South-Africa, in the South. The country's surface area is 799,380 km<sup>2</sup>, with a coastline that extends about 2,800 km from north to south. Mozambique is divided into ten provinces, and additionally Maputo City, the capital, with the administrative status of a province. The provinces are subdivided into districts, administrative posts and localities, which are the lowest geographical level of state administration. The country is also to be considered as a three-region territory, in which the Northern (Provinces of Cabo Delgado, Niassa and Nampula), Central (Provinces of Zambezia, Tete, Manica and Sofala) and Southern (Provinces of Inhambane, Gaza and Maputo) regions are officially recognized.<sup>6</sup>

Based on the census of 2017, the total population in 2020 is projected to be approx. 31,255,435 inhabitants, the annual growth rate is 2.93 % and the density is 40 people per square kilometre<sup>7</sup>. The urban population represents 38.3% of the total. About 66% of the population of Mozambique (2017) live and work in rural areas<sup>8</sup>. The country is endowed with ample arable land, water, energy, as well as mineral resources and natural gas both onshore and offshore. The country has about 36 million hectares of arable land, suitable for agriculture. At present, approximately 3.9 million hectares, which make about 10% of the arable land are under cultivation with 97% cultivated by smallholder farmers. Mozambique is a country with significant natural forest cover. Native forests and woodlands cover 43% of land-mass, harboring extensive biodiversity and unique landscapes. Forests are critical to the country's social, environmental and economic well-being. The surface waters are the country's main water resource. Mean annual runoff is estimated at 216,000 million cubic metres (Mm<sup>3</sup>), of which only 100,000 Mm<sup>3</sup> originated in rainfall

<sup>6</sup> <https://www.worldometers.info/world-population/mozambique-population/>, retrieved 04/04/2020

<sup>7</sup> [https://pt.wikipedia.org/wiki/Subdivisões\\_de\\_Moçambique](https://pt.wikipedia.org/wiki/Subdivisões_de_Moçambique), retrieved 04/04/2020;

<sup>8</sup> <https://www.worldbank.org/en/country/mozambique/overview>, retrieved 10/04/2020;



inside Mozambique. The remainder originates in countries upstream. The basin of the Zambezi River represents almost 50% of the surface water resources and about 50% of the flow from countries located upstream. Ground water is the main water source for supplying the rural areas. To this end, boreholes and wells with manual water pumps are used, but these have a limited range of action. Ground water is also used to supply some of the major cities – Pemba, Tete, Quelimane, Xai-xai, and Chokwe – as well as smaller towns (Ilha de Moçambique and Manhiça, among others). The use of ground water, however, is sometimes hindered by low water quality, caused by salt-water intrusion in the coastal areas, ancient marine intrusions, or contaminations resulting from the discharge of effluents. The country has substantial energy resources, both renewable and fossil fuels. Hydro energy has a potential of about 18 GW of which around 2.192 GW has been developed. The potential of biomass is about 2 GW and wind 4.5 GW. The most abundant renewable resource in Mozambique is solar energy with a potential of 23,000 GW. The country has large sedimentary basins of natural gas: both on-shore and off-shore reserves have been discovered in the Rovuma basin in the far north of the country, that are estimated collectively to exceed well over 100 trillion cubic feet of gas. In addition, Mozambique maintains the fourth-largest untapped recoverable coal reserves in the world. The northern province of Tete is the epic center of these (re-)discoveries of coal reserves, with an estimated size of about 23 billion tonnes. In terms of infrastructure, the country has three deep-sea ports, and more are being established, a particularly important asset as four of the six countries it borders are landlocked, and hence dependent on Mozambique as a conduit to global markets<sup>9</sup>.

Mozambique is a former Portuguese colony, from 1891 to 1975, when the country gained its independence after 10 years of armed struggle. The constitution adopted on 25 June 1975, the day of independence, declared Mozambique as a unitary state following a presidential one-party system and centralized economy<sup>10</sup>. From 1977 to 1992 the country experienced a civil war. Recent peace agreement was signed in 2019 between the Government of Mozambique and the rebels. In the framework of the negotiations between the Government and the rebels a new constitution was adopted in November 1990, replacing the independence constitution, separating executive, legislative and judiciary powers and adopting market economy principles<sup>11</sup>. It enshrined the principles of political pluralism and election by secret ballot of a government based on majority rule. The President is head of state and government and is directly elected every five years for a maximum of two terms. He or she appoints the Prime Minister and the council of ministers and is Commander-in-Chief of the defence and security forces. The national legislature is the 250-member *Assembléia da República*, members of which are also elected by direct, universal adult suffrage every five years<sup>12</sup>. Under the constitution adopted in 2004, the Constitutional Council was established to ensure strict observance of the constitution, including the electoral acts. The Council of State

<sup>9</sup> Ibid;2

<sup>10</sup> [https://en.wikipedia.org/wiki/People%27s\\_Republic\\_of\\_Mozambique](https://en.wikipedia.org/wiki/People%27s_Republic_of_Mozambique), retrieved on 04/04/2020

<sup>11</sup> <https://thecommonwealth.org/our-member-countries/mozambique/constitution-politics>, retrieved on 04/04/2020;

<sup>12</sup> Ibid;



was also established – comprising of the Prime Minister, and representatives of the opposition and civil society – to advise the President on specific matters. Punctual amendments of the constitution have been taking place since 2004 to safeguard specific issues, but its essence has been prevailing. For instance, in 2018 the constitution was revised to accommodate extension of decentralization process by introducing election of provincial Governors, who in the past were appointed by Presidential decrees<sup>13</sup>.

While economic conditions have been improving since the end of the civil war in 1992, Mozambique remains on a subdued growth trajectory following the 2015 commodity price shock, 2016 hidden loans crisis, 2019 Idai and Kenneth climate shocks and 2020 COVID-19. Mozambique had one of the highest real Gross Domestic Product (GDP) growth rates in the world, at 7.5%. Yet it ranks 181st out of 189 countries on the UN Human Development Index (2020). It is one of the poorest countries in the world, with more than 55% of its people officially living below the poverty line. The GDP in Mozambique was worth \$14.93 billion in 2019, according to official data from the World Bank and projections from Trading Economics. The GDP value of Mozambique represents 0.01% of the world economy.

The most important sector of Mozambican economy is services and accounts for 49 % of total GDP in 2020, of which wholesale and retail trade, repair of motor vehicles (12%); education (8%) and transport (7%). Industry constitutes 27% with mining and quarrying representing 11% as the country has large mineral deposits (marble, bentonite, coal, gold, bauxite, granite and gemstones) with aluminum being the most important exported product. Manufacturing accounts for 10% and construction for 3%. Agriculture, hunting, forestry and fishing create 24% of the wealth with prawns, cotton, cashew nuts, sugar, citrus, copra, coconuts, and timber being the most important crops. On the expenditure side, household consumption is the main component of GDP and accounts for 67% of its total use, followed by government expenditure (26%) and gross fixed capital formation (25%). Exports of goods and services account for 41% of GDP while imports account for 73%, eroding 32% of total GDP. Real gross domestic product (GDP) per capita in 2018 was \$539.20. The devastating impact of tropical cyclones Idai and Kenneth, in 2019, on agricultural production and falling commodity prices, motivated muted growth in 2019. In addition, the prevailing COVID-19 pandemic, may cause the figures for 2020 to drop quite significantly.

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<sup>13</sup>[http://m.portalangop.co.ao/angola/pt\\_pt/noticias/africa/2018/4/21/Mocambique-Parlamento-aprova-emendas-Constituicao\\_0f8aa787-7824-4206-950c-37136609d784.html](http://m.portalangop.co.ao/angola/pt_pt/noticias/africa/2018/4/21/Mocambique-Parlamento-aprova-emendas-Constituicao_0f8aa787-7824-4206-950c-37136609d784.html), retrieved 10/04/2020.



## 4.2 Climate Vulnerability (socio-ecological, sectoral) and risk

Historically Mozambique is the country most affected by natural disasters in the Southern African region. More than 8 million Mozambicans were affected by natural disasters in the last 20 years<sup>14</sup>. Mozambique registered a total of 53 disasters in the last 45 years, representing on average 1.17 disasters per year. These disasters displaced 500,000 people, destroyed infrastructures, and caused an extremely negative impact to the national economy. Major disasters faced are of meteorological nature, mainly droughts, floods, cyclones, and windstorms.

Droughts is a common phenomenon in Mozambique. Droughts occur in time frames of 7 to 11 years. The whole region of Southern Mozambique and the South part of central Mozambique is very prone to droughts, due to its aridity. This includes the interior of the provinces of Maputo, Gaza and Inhambane in Southern Mozambique and the south of the provinces of Manica, Sofala and Tete, which are also arid.

The country is located downstream of all international rivers crossing the national territory towards the Indian Ocean, the Rovuma, Zambeze, Púngè, Buzi, Save, Limpopo, Umbeluzi, Incomáti and Maputo Rivers. Therefore, floods in Mozambique are due to both internal rainfall and water flows from neighbouring countries because of precipitation in the upstream countries, mostly linked with inefficient management of dams. This means that all coastal region of Mozambique is prone to floods with focus on the southern and central parts of the country.

The Southwest part of the Indian Ocean is one of the most active basins of tropical cyclones. Thus, the country is very exposed to cyclones<sup>15</sup>. Every year this basin alone produces about 10% of all cyclones in the world. The tropical cyclones formed in this zone reach Mozambique, in average, once a year, while the depressions of lower intensities, like windstorms, occur three to four times per year. The zones between Angoche and Pemba and the proximities of Beira City are the parts of the country that are reached with higher frequency. The cyclonic season in Mozambique is from November to April. In March 2019, *Idai* cyclone hit Mozambique reaching its central part and some neighbouring countries, like Zambia, Zimbabwe, and Malawi. In the same month, *Kenneth* cyclone hit the Province of Cabo Delgado<sup>16</sup>. The two cyclones were devastating. The greatest impact of the storm was experienced on landfall. It caused flooding, excessive wind-speed, and storm surge damage in the central region of Mozambique.<sup>17</sup> The flooding left hundreds of thousands of people homeless.

<sup>14</sup> B. C. Cuamba et al. 2008 "Challenges to Managing Floods and Droughts in Transboundary River Basins in Mozambique" in "Towards Climate Change Adaptation: Building Adaptive Capacity in Managing African Transboundary River Basins, Cases Studies from African Practitioners and Researchers", INWENT, Germany, December 2008, ISBN:978-3-939394-28-0

<sup>15</sup> P. Zhou, T. Simbini, B. C. Cuamba "The Assessment of the Impacts of Historical Extreme Weather Events on the Power Sector in Southern Africa", ESKOM Holdings Limited, Unpublished, 2012

<sup>16</sup> [https://www.google.com/search?q=idai+and+keneth+cyclones&rlz=1C1CHZL\\_enMZ837MZ837&oq=idai+and+keneth+cyclones&gs=chrome.69i57j0l3.11650j08&sourceid=chrome&ie=UTF-8](https://www.google.com/search?q=idai+and+keneth+cyclones&rlz=1C1CHZL_enMZ837MZ837&oq=idai+and+keneth+cyclones&gs=chrome.69i57j0l3.11650j08&sourceid=chrome&ie=UTF-8), retrieved 10/04/2020

<sup>17</sup> <https://psmag.com/environment/why-tropical-cyclone-idai-had-such-a-wide-impact>



## 4.3 Mozambique's GHG emissions profile

According to the first Biannual Updated Report (BUR), in 2000 and 2016, total national GHG emissions in Mozambique were estimated at 54,280.35 Gg CO<sub>2</sub>eq. and 69,318.56 Gg CO<sub>2</sub>eq, respectively. Three main gases made up these figures, namely carbon dioxide (CO<sub>2</sub>), with 52,550.50 Gg, methane (CH<sub>4</sub>), with 47.90 Gg, and nitrous oxide (N<sub>2</sub>O), with 0.24 Gg in 2000. In 2016, the same gases emitted 58,413.27 Gg (CO<sub>2</sub>), 514,50 Gg (CH<sub>4</sub>) and 0,33Gg (N<sub>2</sub>O).

Table 1 presents the summary of the three main gases emissions per sector (2000 and 2016). within this sixteen-year period, the net emissions increased for all gases in 11,16% (CO<sub>2</sub>), 974,16% (CH<sub>4</sub>) and 33,50% (N<sub>2</sub>O). Globally, this increase is about 28%. At the same time, the country recorded removals in the order of -119,775.98 Gg in 2000 and -119,132.10 Gg in 2016, represented in total by carbon dioxide (CO<sub>2</sub>).

**Table 1. National GHG emissions 2000 and 2016**

YEAR: 2000					
Categories	Net CO <sub>2</sub>	CO <sub>2</sub> Removals	CO <sub>2</sub> Emissions	CH4	N2O
<b>Total Emissions and Removals</b>	<b>- 67.225,48</b>	<b>- 119.775,98</b>	<b>52.550,50</b>	<b>47,90</b>	<b>0,24</b>
<b>1. Energy</b>	1.396,73	NA	1.396,73	0,42	0,05
<b>2. AFOLU</b>	- 71.691,45	- 119.775,98	48.084,53	25,31	NA
<b>3. IPPU</b>	1.360,05	NA	1.360,05	NA	NA
<b>4. Residues</b>	1.709,18	NA	1.709,18	22,17	0,19
YEAR: 2016					
Total Emissions and Removals	<b>- 60.718,82</b>	<b>- 119.132,10</b>	<b>58.413,27</b>	<b>514,50</b>	<b>0,33</b>
<b>1. Energy</b>	3.669,30	NA	3.669,30	0,95	0,13
<b>2. AFOLU</b>	- 71.018,83	- 119.132,10	48.113,27	83,73	NA
<b>3. IPPU</b>	4.273,06	NA	4.273,06	NA	NA
<b>4. Residues</b>	2.357,64	NA	2.357,64	429,81	0,19

The removals reported are mainly the result of the growth of the trees of the forest areas that maintained the forest cover during the period under analysis. This is how the "forest land remaining forest" category was the one that made the greatest contribution to the removal of greenhouse gases and proved to be the main key category (see the Key Category Analysis section). The growth rate of forests is higher than their rate of degradation. It should be noted that similar results, in which removals were higher than emissions, were obtained by Namibia (see Namibian BUR) and Zambia (see Pelletier et al 2018).



## 5. INSTITUTIONAL AND STRATEGIC FRAMEWORK

Issues related to climate change and disaster risk reduction are of importance across all economic sectors and are addressed by all relevant governmental departments. Nevertheless, the ministries that have the leadership are those of Land and Environment (MTA), Economy and Finances (MEF) and of State Administration and Public Function (MAEFP). The MTA oversees all environmental issues, including climate change matters (incorporating partnerships and funds, among others), development of policies, strategies and plans, including the NDCs. The MTA is also the focal point with the UNFCCC while the MEF oversees all development issues. It is this Ministry that is in charge of elaborating, budgeting, and overseeing the implementation of the five years national development plans (PQG). This means, in other words, that the MEF is in charge of mainstreaming climate change issues into development plans at the country level. The MAEFP hosts the National Institute for Disasters Management (INGC), an entity established by the Government of Mozambique to deal with disaster risks. Details of activities related with NDCs under such ministries will be provided in the next sections.

### 5.1 Ministry of Land and Environment (MTA)

The Government of Mozambique has approved its National Strategy for Adaptation and Mitigation of Climate Change (Estratégia Nacional de Adaptação e Mitigação de Mudanças Climáticas, ENAMMC) for the period 2013-2025, which includes strategic and priority lines to be adopted and implemented during the referred years<sup>18</sup>. The strategy is based on international treaties and on national policies, also considering gender and social equality, as well as a set of sectorial policies and strategies. Its overall objective is to establish action guidelines for building resilience, including the reduction of climate risks, in communities and national economy, and to promote the development of low carbon and green economy through their integration into the sectorial and local planning process.

For the purpose of implementation of ENAMMC, it is recognized that mobilization and allocation of resources are essential. An effective response to the challenge of achieving this requires (i) strengthening national capacity to integrate climate change in bilateral and multilateral development finance negotiations; (ii) strengthening the national body responsible for leadership and coordination of access to the various international climate change financing mechanisms; (iii) evaluating the financing mechanisms available for climate change adaptation, including local funds from donations, contributions, corporate social responsibility and individual contributions; and (iv) assessing the possibility of creating a climate change common fund. For now, all funds raised by all entities are communicated to the National Fund for Sustainable Development (FNDS), an institution created and being supervised by MTA, which has the role

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<sup>18</sup> Government of Mozambique "National Strategy for Adaptation and Mitigation of Climate Change (2013-2025), Maputo, Mozambique



of 'Financing Coordination Agency'. According to ENAMMC, FNDS should register all financing activities related with climate change. This would facilitate the sharing of climate change related information.

The resources mobilized by FNDS to sectors, programmes and projects are allocated according to national standards, norms and regulations, and consider the nature and modalities of each type of funding and the nature of the implementing institution receiving funds. It is up to the FNDS, in coordination with other relevant entities to ensure that available financial resources are allocated to the activities contributing to the implementation of the national priorities outlined in ENAMMC.

## **5.2 Country climate investment plan**

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### **5.2.1. Institutional organogram for climate finance approval and country ownership**

The MTA is coordinating most of the climate change funds both established nationally and coming from multilateral and bilateral international cooperation. At a national level, the only fund associated with climate change issues is the National Fund for Sustainable Development (FNDS). There are other available funds not exclusively for climate change purposes, but involving climate change dimensions, within some ministries. Funds hosted by the MTA are managed by the National Fund for Sustainable Development (FNDS). So, projects are submitted to the FNDS who evaluates them in coordination with the UNFCCC focal point. The evaluation is made based on the ENAMMC, National Development Strategy (ENDE), Master Plan for Disaster Risk Reduction, NDC Operationalisation Plan and Five Years Governmental Plan.



## 5.3 National Communications and Biennial Update Reports (BUR)

The UNFCCC sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. In this regard the countries are requested to submit their national communications (NCs) every five years. So far Mozambique has submitted only the first communication in June 2006. The second NC is in draft form. On the other hand, all Parties must report on the steps they are taking or envisage undertaking to implement the UNFCCC. Non-Annex I Parties should submit biennale update reports (BURs). In 2012, COP 17 decided that the first non-Annex I BURs, consistent with their capabilities and the level of support provided for reporting, should be submitted by December 2014. Subsequent BURs should be submitted every two years, as a summary of parts of the national communication in the year the national communication is sent or as an independent update report. So far, Mozambique has not submitted any BUR. The first document is still in draft form. Thus, the country faces serious challenges to present timely both the NC and the BUR. The main reason is associated with the fact that the country has not yet establish a structure that enables the continuous collection of the information required to feed these reports.

## 5.4 Ministry of Economy and Finances (MEF)

### 5.4.1. The National Development Strategy

General development issues of the country are dealt within the National Development Strategy (*Estratégia Nacional de Desenvolvimento*, ENDE 2015-2035), whose objective is to raise the living conditions of the population through structural transformation of the economy, expansion and diversification of the productive base<sup>19</sup>. The national development strategy addresses risk factors, including natural shocks whereby all climate change phenomena are considered. The Strategy is aligned with global and regional documents such as UN Sustainable Development Goals (SDG) and the Strategic Indicative Plan of the Southern African Development Community (SADC)<sup>20</sup>.

The ENDE guides the preparation of Sectoral and Territorial Strategic Plans and is implemented through the Government's Five-Year Planning processes (PQG). The Strategy defines four main pillars namely: (i) Human capital development; (ii) Development of productive base infrastructures (including roads, ports and railways); (iii) Research, innovation and technology development and (iv) Articulation and institutional coordination. The priority areas defined in the Strategy are: (I) Agriculture and fishing transformation; (II) Revitalization and expansion of the manufacturing industry; (III) Extractive industry and (IV) Development of ecologic, cultural, and historic tourism. The operationalization of the Strategy takes place within the framework of the current planning system, through the Economic and Social Plan (PES) and State Budget

<sup>19</sup> Ministry of Economy and Finances "National Development Strategy", Maputo, 2014

<sup>20</sup><https://allafrica.com/stories/201406120307.html>, retrieved 10/04/2020



(OE) which are the two key annual instruments in this process. Private sector is also encouraged to invest in the defined priority areas which is indicated in the annual Economic and Social Plans.

#### **5.4.2. The National Designated Authority (DNA) for the Green Climate Fund (GCF)**

Hosted by the Ministry of Economy and Finances, the Designated National Authority (DNA) for the Green Climate Fund (GCF) is supported by an advisory committee representing different public and private institutions and sectors of activities. When projects are submitted (from public, private and civil society organizations) through an accredited entity, the advisory committee is invited to meet for preliminary project analysis, according to national regulations, specifically the national development strategy, described above.

### **5.5 Ministry of State Administration and Public Function (MAEFP)**

#### **5.5.1. Master Plan for Disaster Risk Reduction**

One of the instruments under MAEFP is the 2017-2030 master plan for disaster risk reduction, whose vision is to improve the resilience of the population and public and private infrastructure to extreme climate events. The overall objective of this plan is to reduce the risk of disasters, the loss of human lives and vital infrastructure, as well as preventing the emergence of new disaster risks by increasing human and infrastructure resilience in face of natural and anthropogenic climate events.



### 5.5.2. Master Plan for Disaster Risk Reduction

The National Institute of Disaster Management (INGC) established in 1999, coordinates disaster risk management activities in Mozambique. The INGC operates under the MAEFP and is mandated to coordinate emergencies, promote disaster prevention through population and government mobilization, protect human lives, ensure multi-sectoral coordination in disaster emergency, coordinate early warning systems, carry out public awareness and re-utilize arid and semiarid zones. INGC operates at national, provincial, district and community levels. Three regional emergency operation centres (CENOE) handle cyclones and droughts (Vilankulo), floods (Caia) and cyclones (Nacala). There are also four multiple use and resource centres (CERUM) at the district level specialized in reducing droughts. At the community level, INGC acts through local committees for Disaster Risk Management that are empowered to deal with both disaster prevention and preparedness.



## 6. THE IMPLEMENTATION OF THE NATIONALLY DETERMINED CONTRIBUTIONS

### 6.1 NDC Overview

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The Government of Mozambique submitted its Intended Nationally Determined Contribution (INDC) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2018<sup>21</sup>. The operationalization Plan for the NDC (2018-2025) was developed by the government with support from the Global NDC Partnership. The plan, which is now in implementation, reflects the mitigation and adaptation priorities for action indicated in the NDC. The Plan was developed through an exhaustive process of consultation with stakeholders at national and provincial level and is a collaborative effort between government entities and cooperation partners. The plan includes a set of 99 measures aligned with the National Strategy for Adaptation and Mitigation of Climate Change (ENAMMC) and sectoral strategies and plans, associated with both adaptation and reduction of climate risk and mitigation as well as development of low carbon economic activities.

The adaptation and reduction of climate risk measures cover the areas of (i) communication, education, training and sensitization, (ii) climate risk reduction, (iii) water resources, (iv) agriculture, forest, fisheries, food and nutritional security; (v) social protection, (vi) health, (vii) biodiversity and (viii) infrastructure, urban areas, settlement and tourist and coastal areas. In low-carbon mitigation and development, the sectors covered include (i) energy (including transport), (ii) industrial processes and product uses, (iii) agriculture and forest and (iv) waste.

Through the implementation of the above mentioned measures in the time period between 2020 and 2025, it is expected to increase the resilience of all Mozambicans and limit GHG emissions by 31.2 MtCO<sub>2</sub>eq by 2025. Forest and other land uses, energy production and waste management contribute to this limitation. The implementation of Mozambique's NDC, following the Operationalization Plan, has an estimated cost of at least \$11 billion. It is to be noted that Mozambique does not have a climate investment plan as such. The reference document being used with this purpose is the Mozambique's NDC Operationalization Plan, combined with the Five Years Governmental Plan. Other complementary investment plans include the Forestry Investment Plan and Green Economy Action Plan.

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<sup>21</sup> Government of Mozambique "Operationalisation Plan of the NDC of Mozambique, 2018"



## 6.2 NDC Targets

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- **Mitigation Targets:** Based on the policy actions and programmes outlined above, the country estimates, on a preliminary basis, the total reduction of about 76,5 MtCO<sub>2</sub>eq in the period from 2020 to 2030, with 23,0 MtCO<sub>2</sub>eq by 2024 and 53,4 MtCO<sub>2</sub>eq from 2025 to 2030. These reductions are estimates with a significant level of uncertainty and will be updated periodically. The implementation of any proposed reduction is conditional on the provision of financial, technological and capacity building from the international community.
- **Adaptation Targets:** Targets considered under adaptation include: (i) operationalization of the national climate change adaptation and mitigation strategy; (ii) operationalization of the Knowledge Management Centre, the National Climate Change Network and the Financial Mechanisms, foreseen in ENAMMC (iii) Assessment of the capacity needs of the National Climate Change Network and elaboration/ implementation of the capacity plan to conduct research and investigation in the relevant areas; (iii) Strengthening of institutions to collect and manage data and information and creation of a data base about the existing studies and experts; (iv) Elaboration and implementation of a strategy for climate change education, awareness raising, communication and public participation; (v) Assessment of adaptation technology needs and formulation/ implementation of the associated plan; (vi) Updating of the sectoral policies to mainstream climate change adaptation and risk reduction; (vii) Establishment of climate insurances; and (viii) Building of a national technical and institutional capacity to design and manage projects to access climate financing.



## 6.3 Initiatives and actions that support NDC priorities

Mozambique aims at reducing GHG emissions by identifying and developing low-emission options for generating and distributing energy. General measures include, inter-alia, development of revised national energy strategies, new policies for the promotion of biofuel, measures to conserve and increase the sustainability of biomass fuel use and developing plans and policies for increased use of LPG in energy distribution and electricity generation. Mozambique aims also at upscaling and implementing its National REDD+ strategy, which is focused on addressing multiple drivers of emissions from Mozambique's land use sector as the largest single source of GHG emissions nationally. In the waste management sector, Mozambique plans to establish two solid waste landfills with equipment for recovery of methane gas and to implement a revised strategy for integrated management of urban waste. In the transport sector, one of Mozambique's largest sources of emissions from fuel combustion, national priorities include measures to increase the sustainability and integration of urban transport and public mass transit systems in urban areas.

In general, Mozambique plans to increase the awareness, capacity, and the level of coordination of stakeholders from local levels upwards to institutional levels. At an institutional level, Mozambique will increase the investments in the monitoring and research of climate change impacts. The focus will also be on increasing and strengthening the national mechanisms for issuing early warnings.

Among other measures, adaptation in AFOLU will require additional investments in food security and nutrition, it will demand increased protection and management of biologically diverse areas and natural resources, such as soils, and increased planting of valuable trees and protection of soils from degradation. In the water sector, adaptation actions include the improvement of the national capacity for integrated water resources management, as well as the construction of climate-resilient infrastructure for water resources management.



### 6.3.1. Climate-smart Agribusiness and AFOLU

Mozambique's agriculture sector is a major employer – 74.6% of total workforce – but characterized by subsistence farming with very low productivity. In absolute terms, agricultural production increased remarkably over time. However, output increases are mainly a result from an expansion of cultivation areas, rather than from increases in productivity, while a continued expansion of cultivation areas is constrained by land tenure issues. Furthermore, agriculture production is regularly affected by climate shocks. Farmers are almost exclusively smallholders. Yields of rice, maize, and cassava are among the lowest in the region. Provision of public agricultural services is modest. From 2002 to 2012 the value of production sold did not change, with only about 18% of farmers selling maize and 13% selling rice. With the fast population growth outpacing current agriculture production, Mozambique's dependence on imports for food is expected to reach 25% by 2040. In line with the country's Agricultural Transformation Agenda (ATA), initial experiences with integrated agriculture corridors – agro-based spatial development initiatives – such as the Beira Corridor, are yet to mature but provide inroads into fostering agriculture commodities value-chains that can increase production and productivity. To facilitate agriculture integrated development, it is crucial to promote land tenure reforms, infrastructure that provides market access, climate resilience, as well as promoting the enabling environment by strengthening contract farming and out-grower schemes, linking smallholders to the value chains of large commercial farms and processing industries.<sup>22</sup>

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<sup>22</sup> Mozambique Country Strategy Paper, AfDB 2018-2022



### 6.3.2. Transport and Infrastructure

Mozambique's main challenge in terms of transport infrastructure is its low road coverage, especially in rural areas, that translates into high transaction costs and makes the country's productive sectors uncompetitive. The Government Transport Strategic Plan (2009) has a focus on development corridors, integrating the road, maritime and railway subsectors, as well as the Aviation and Urban sub-sectors. These corridors serve domestically as economic growth poles and as links between urban and rural areas, while also providing a backbone of public service delivery. Three main corridors (Maputo, Beira, Nacala) serve 4 landlocked countries through road and railways, linked to deep water seaports, and international airports, at the same time interconnecting the country East-to-West. However, the country has one of the lowest road coverages on the continent, both per capita (45<sup>th</sup> out of 54) and land area (46<sup>th</sup>). Only 33% of the rural population lives within 2 km of an all-season road. The sector suffers from major capacity constraints in technical and human resources, compounded by the rapidly expanding infrastructure asset pool and thus rising maintenance costs. Further development of the road network is required to provide access of rural areas to domestic and regional markets, with an integrated approach that promotes agriculture value-chains and public service delivery.<sup>23</sup>

The climate change related damage in roads from 2011 to 2015 include 130 aqueducts, 119 bridges and 41 drifts destroyed or affected, 15,512 km of impassable roads, and the amount of destruction was estimated at about \$333 million. In the transport sector, one of Mozambique's largest sources of emissions from fuel combustion, national priorities include measures to increase the sustainability and integration of urban transport and public mass transit systems in urban areas. Floods from 2000 to 2015 affected about 4,629,000 people, 1,204 deaths and caused damage in 1,176,000 houses, of which 638,700 have been destroyed. Damage also occurred in water storage and flood protection infrastructures, mainly in dyques of Licungo in Nante and Limpopo in Chókwe, Guijá and Xai-Xai, and in railways and ports. The cost of these adverse events was estimated as \$1,356.9 million.<sup>24</sup>

<sup>23</sup> Mozambique Country Strategy Paper, AfDB 2018-2022

<sup>24</sup> Nationally Determined Contributions (NDCs), Mozambique 2018



#### 6.3.4. Green buildings and Smart Cities

Issues related with green buildings and smart cities are spread in different sectoral plans considered in the NDC Operationalisation Plan, namely sectoral plan for water resources (appendix III), sectoral plan for energy (appendix V), sectoral plan for transport (appendix VI), sectoral plan for waste (appendix VIII) and sectoral plan for infrastructures, urban areas, other settlements and tourist and coastal areas (Appendix XII).

Regarding water resources, a more efficient use of water and implementation of rainwater harvesting systems, where applicable, should be prioritized in this thematic. Energy efficiency in buildings and integration of renewable energy systems in both building and public spaces should be another priority. In particular, solar water heaters should replace electric geysers gradually. Concerning the transport sector in cities, a widespread use of public transport should be promoted to overcome the present situation of overuse of individual vehicles which increases the greenhouse gas emissions in the atmosphere. A better waste management plan as well as waste-to-energy alternatives should be put in place to reduce greenhouse gas emissions. Last but not least, good and environmentally friendly practices on construction of infrastructures should be included in the respective legislation aiming to promote sustainability and resilience towards climate change phenomena.



### 6.3.5. Renewable Energy and Energy Efficiency

Despite having one of the highest energy potentials in the world, Mozambique has an underdeveloped electrical power system, which allows only about one in four citizens to have access to on-grid electricity. Even though the access rate quadrupled since 2000 to 34%, the country needs to substantially accelerate the pace of national electrification to reach the goal set by the GoM to provide 100% access by 2030. Mozambique's current energy mix, provided also by a few independent power producers, is composed by 56% of hydropower and 42% by gas-to-power, while the remaining 2% of energy is imported. The country is not yet evenly served by on-grid electricity, lacking connectivity between the central and southern power systems. The institutional framework is maturing with the recent creation of a sector regulator (ARENE) and the progressive phasing-out of tariff subsidies, as well as relevant reforms within the national power utility (EDM), including the separation between distribution and generation activities and the introduction of human resources management.<sup>25</sup> FUNAE, the rural energy agency plays a big role in the off-grid electrification.

Acceleration of the renewable energy sector (both for grid and off-grid purposes) would require improving the business environment to attract private sector investments. The so-called "red tape" needs to be reduced while legislation and regulatory frameworks need to be adapted/ developed<sup>26</sup> to allow, for example, mini-grid concessions, off-taker guarantees for Independent Power Producers (IPPs), commercially viable tariffs, among others. It is also important to have the public institutions to come to a coherent approach in addressing the challenges underlying the Access to Energy agenda. Reaching full access of grid-electricity by 2030 would require an investment of roughly \$6 billion (the real cost per grid connection are in the order of \$500-2,000<sup>27</sup>) – here there is an important role to play for the private sector in cost-effectively targeting potential off-grid customers with renewables stand-alone or decentralised energy solutions instead of grid-electrifying the country from North to South.

<sup>25</sup> Mozambique Country Strategy Paper, AfDB 2018-2022

<sup>26</sup> New electricity law is currently under review, which will enable the environment for more private sector participation. As an example, its article 6, aims at transparency and reasonableness in the definition of tariffs and prices, which shall reflect investment and operating costs and the socio-economic capacity of the consumer, and stimulate efficient use of electrical energy and to establish and publish criteria and methods for calculation of electrical energy tariffs and prices.

<sup>27</sup> The Electricity Master Plan (2014) assumes \$500 per connection, while recent estimates in the draft NES (2017) indicate substantial higher costs per connection



### 6.3.6. Waste Management

The inadequacy, outdatedness and lack of systematization of information on solid waste in Mozambique constitute a serious problem for broader understanding of the situation of waste, as well as for the services linked to the matter, so as to allow the establishment of policies for developing this area, and to direct the activity of the government or private bodies that deals with the question. The country is currently implementing the Integrated Urban Solid Waste (USW) Management Strategy (2013 – 2025) and the USW management - a complex and multi-sector activity - is run under the Municipal Councils under Article 25, line c) of Law 11/96 of 2 May 1996. The wastes are essentially of organic origin, and are generally treated by the producers themselves, because the municipal authorities have no capacity to cover this area.

In general, the final destination of the waste is open air rubbish tips on the outskirts of the cities. The location of these rubbish dumps often does not respect basic criteria – such as, that they should be in areas of low population density, that the aquifer should not be near the surface, the soil should not be very permeable, and should not be subject to erosion. In the waste management sector, Mozambique plans to establish two solid waste landfills with equipment for recovery of methane gas and to implement a revised strategy for integrated management of urban waste.

### 6.3.7. Water and Irrigation

Mozambique has vast water resources, but infrastructure deficiencies, notably inadequate irrigation, and poor sector management undermine adequate water supply and flood control. The spatial and temporal variability in precipitation across the country and the fact that many rivers originate outside the country make Mozambique vulnerable to both drought and floods, as well as irregular water supply to populations and businesses. Just 50% of the population is directly connected to water. Agriculture (including irrigation, livestock and forestry) uses about 73% of total water consumption; industries only about 2%, and urban and rural domestic water supply use the remaining 25%. However, the actual irrigated farmland is not more than 4% of the estimated potential of nearly 3 million ha.<sup>28</sup> Mozambique plans to improve the capacity for integrated water resources management including building climate resilient hydraulic infrastructures; to increase the effectiveness of land use and spatial planning (protection of floodplains, coastal and other areas vulnerable to floods) - increasing the resilience of agriculture, livestock and fisheries, guaranteeing the adequate levels of drinking water, food security and nutrition.<sup>29</sup>

<sup>28</sup> Mozambique Country Strategy Paper, AfDB 2018-2022

<sup>29</sup> Nationally Determined Contributions (NDCs), Mozambique 2018



### 6.3.8. Financial Sector

The country's NDCs raise the main challenges of the national's financial sector, namely; insufficient financing available to implement climate actions, associated with the complexity of the criteria and procedures for accessing the international climate financial resources, low public investment and private participation in the adaptation actions, lack of funding to maintain and upgrade data collection stations (meteorological, hydrological, hydrographical, air quality, among others); and slow payback of the investment in climate change adaptation actions.

Within this context, the NDCs confirms that the listed contributions are fully conditional. The international institutions are currently working closely with Mozambique, a country that happened to become in the past few years "very donor intensive". Major financing sources available in country are (i) State budget; (ii) private sector; (iii) Cooperation partners; (iii) Environmental Fund (Portugal); (iv) GCF Readiness; (v) MozBIO; (vi) MozFIP; (vii) FNDS; (viii) Chinese Government; (ix) United States Trade and Development Agency (USTDA); (x) EDM; (xi) French NEOEN; (xii) FUNAE; (xiii) Quantum Power; (xiii) Islamic Bank of Development; (xiv) World Bank; (xv) Norwegian Government; (xvi) Consortium ENH/KOGAS/GALP; (xvii) Belgian Government; (xviii) Propesca; (xix) DFID; (xx) Japanese Government; (xxi) JNAMA FACILITY; (XXII) GEF, (xxiii) European Union, (xxvi) Municipalities, among others.



## 7. PRIVATE SECTOR LANDSCAPE

### 7.1 Key players for climate action

Private players can be project developers (both companies and NGOs) of national or international origin sponsors, investors, and financial institutions are considered. Mozambique's private sector is still developing, contributing just 65% to the GDP, and characterized by low productivity and competitiveness. The sector is dominated by individual entrepreneurs, and micro-enterprises, with few SMEs. Individual entrepreneurs represent 93% of all enterprises, while micro-enterprises (2-4 employees) account for 6.6% and small enterprises (5-49 employees) are 0.7%. Only 0.02% are medium size, employing between 50 and 100 workers.<sup>30</sup>

The factor productivity is low, and the value addition is limited, both in manufacturing and agriculture. Agro-businesses are generally constrained by high transport costs due to poor infrastructure, including low access to energy, inefficient ports, increased logistic costs, and costly business environment (tax, corruption, administrative costs, etc.). This is reflected in both the World Economic Forum Global Competitiveness Index 2018 executive survey, where 'Access to Finance' and 'Corruption' remain the most binding constraints for doing business, as well as in the World Bank Doing Business 2018 Index, where 'Enforcing Contracts' and 'Getting Credit' are the most binding constraints. Other significant constraints flagged by these indices are inadequate supply of infrastructure services, inefficient government bureaucracy and inadequate educated workforce. Despite considerable expansion of the Mozambique's financial sector during the last decade, financial inclusion is low. Approximately 70% of Mozambicans are without a bank account at a formal financial institution, while formal credit is only available to 3% of the population. However, the top three banks are accountable for 95% of the sector profits, suggesting a high banking concentration, leaving smaller banks vulnerable to the economic downturn. Liquidity in the system is uneven and the Central Bank was forced to bail out a major bank in 2016. Access to affordable finance remains the top constraint for business development as 75% of micro and SMEs are financially excluded, in particular in the rural areas. Addressing both physical infrastructural constraints that can foster productivity, competitiveness and access to markets, as well as legal and regulatory reforms, coupled with the provision of a skilled and adequately trained workforce, is critical to enable the progressive structural transformation and diversification of Mozambique's productive fabric in both manufacturing and agriculture.<sup>31</sup>

<sup>30</sup> Mozambique Country Strategy Paper, AfDB 2018-2022

<sup>31</sup> Mozambique Country Strategy Paper, AfDB 2018-2022



## 7.2 Why should country private sector be interested in NDC green investment

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In the past, climate change programmes were undertaken by the Government and public entities. In the last years, climate change issues are gradually being mainstreamed into development activities. This is the case of the operationalization plan of the Mozambican NDC, developed by the Government with support of the Global NDC Partnership in 2018, which has mainstreamed a significant number of climate change activities into development agenda, particularly the Five Years Plan of the Government. The plan foresees financing of activities and the participation of the private sector, showing a clear path on business opportunities for the private sector. Opportunities exist for instance in fuel switching from petrol to natural gas in vehicles, in fuel switching from diesel to solar and/ or wind in (i) water pumping and irrigation and (ii) cereals milling. There are a lot of activities in energy efficiency as well. The list includes resilient construction of infrastructures, among others. All these activities are in line with the sustainable development goals and may contribute to capacity and skills enhancement in the country.



## 7.3 SWOT Analysis for green investment

Mozambique is ranked as 138 position out of 190 countries in terms of “ease of doing business” according to the latest World Bank annual ratings. The rank of Mozambique deteriorated to 138 in 2019 from 135 in 2018. This fall in the ranking may have to do with many factors, the hidden debts being one of them.

**Table 2. SWOT Analysis on Mozambique's Private Sector NDC Investment**

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Availability of legal framework in climate change.</li> <li>• Existence of various financing instruments and support.</li> <li>• Availability of three institutions dealing with climate change matters (MTA, MEF and INGC).</li> <li>• Growing Climate Change awareness and training in related disciplines in many of the local HES.</li> <li>• Mozambique NDC alignment with green funding targeted project areas and governmental commitment.</li> <li>• Great potential in energy sources (both renewable and non-renewable).</li> <li>• Key law for private sector participation (for example the new Energy law) is currently under revision.</li> </ul>	<ul style="list-style-type: none"> <li>• Low technical capacity of the national private sector.</li> <li>• Poor dissemination of climate change related funding opportunities.</li> <li>• Unavailability of organized data bank on climate change matters.</li> <li>• Low level of Climate Change issues and best practices dissemination among entrepreneurs</li> <li>• Limited education and knowledge on climate change issues and solutions in the Mozambican Society.</li> <li>• Lack of climate finance strategy</li> <li>• Low interest from Private Sector to invest in infrastructure projects.</li> <li>• Approval procedures for investments are long.</li> <li>• Lack of private sector knowledge in developing green bankable projects.</li> <li>• Difficult to access credit and unclear selection procedure.</li> <li>• Lack of clear legal framework to provide incentives for green investments (tax exemption, subsidies, etc).</li> </ul>



OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Great market possibilities for climate smart projects.</li> <li>• Availability of a decree regulating public private partnerships (Decree No. 69/2013).</li> <li>• Country's high vulnerability to Climate Change impacts and few Mitigation/Adaptation projects implemented.</li> <li>• Wide range of investment opportunities, grants, and incentives for developing green projects.</li> <li>• Low access to electricity and willingness to pay for getting access.</li> </ul>	<ul style="list-style-type: none"> <li>• Limited financial capacity of SMEs and bankruptcy.</li> <li>• Climate change shocks.</li> <li>• Banks' perception of high investment risk when analyzing Climate Change / not BAU project concepts for credit.</li> <li>• Risk of having Climate Change projects falling outside the main immediate social development needs (high poverty levels).</li> <li>• Cyclical political instability and high inflation rate (Mozambique imports all its tech needs).</li> <li>• High potential in natural gas and coal reserves, favouring fossil fuels based thermal power generation options. International uncertainty as Mozambique rely totally on imported technologies.</li> <li>• Heavy bureaucracy prior to potential delays on permits / funds disbursement</li> <li>• Uncertainty on inflation and interest rates</li> <li>• Weak capacity in PFM institutions at provincial and district levels</li> <li>• Corruption</li> </ul>



## 8. CLIMATE FINANCE LANDSCAPE

Mozambique has had some success mobilising finance in support of climate action as well as environmental sustainability more generally. Since 2012, Mozambique has been among the group of countries which are implementing the Pilot Programme for Climate Resilience (PPCR), which encompasses support for the institutional and policies reform, for the funding of pilot projects (roads, agriculture, early warning systems, coastal cities and irrigation) and for knowledge management. The majority of the projects are nearing completion and provide opportunities for scaling up. The country has also implemented other projects supported by the Least Developed Countries Fund (LDCF), the PASA3, the JICA, the USAID and the Portuguese Carbon Fund, among others.<sup>32</sup> Typically, these projects have been public sector projects, designed with limited private sector participation. In some cases, the reason being that in the initial stage, projects (e.g. PPCR) were designed as pilots. There is the perception of investments promoting adaptation and resilience as generating public goods and thus best placed to benefit from public capital, etc.

### 8.1 Approved NDC Projects

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During the period 2016-2019, 11 NDCs-related projects have been approved; those that involve private sector participation are highlighted. From these projects only 3 are in progress (status and more information presented in the table below). From the three in progress, there is no evaluation report available - therefore, no information regarding lessons learned up to date.

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<sup>32</sup> Nationally Determined Contributions (NDCs), Mozambique 2018



### Projects (2016-2019) in the context of Mozambique's NDCs implementation

Nº	PROJECT NAME	STATUS	DATA	TOTAL REQUESTED AMOUNT AND CURRENCY	INSTITUTIONS IN CHARGE	ANTICIPATED DURATION	PRIVATE SECTOR PARTICIPATION (YES/NO)
1	Support for the development of the National Adaptation Plan of Mozambique: Readiness submitted and other related capacity building and institutional strengthening related activities		2018	\$198,987.72	UNDP  Ministry of Land  and Environment  (MTA) and MEF are involved in NAP	2 years	YES
2	Strengthening existing coordination mechanisms between government institutions and development partners		January 2019	\$90,000	FAO and  WRI  MTA is hosting the Consultant  MTA and MEF with support from NDCP	1 year	YES



					Support Unit co-funded		
3	Support in the updating and operationalization of the National System for Measuring, Reporting and Verifying Actions and Support, within the Transparency framework of the Paris Agreement		2019	\$8,000.00	NDC Partnership And WRI MTA is co-funding on consultation and mobilization	1 year	
4	Strengthen the GCF focal point and steering committee		2018 (Completed)	\$750,000.00	WB (MEF-NDA)	Supported MEF-NDA	
			Completed	\$300,000	GGGI	Green growth Plan	
5	Development of forest program in Mozambique (MRV system for REDD+ emissions,		2020	\$101,500,000	WB MTA is co-funding	3 years	YES
				\$50,000	FAO-AU		



	Conservation, M&E, Capacity building, Policy framework	Not committed	April 2020	\$200,000.00	UNEP-DTU (Denmark University of Technology) MTA co-funding	2 years	
6	Strengthen the capacity to integrate cross-cutting issues into budget processes at all levels, including climate change (mitigation and adaptation), food security, gender, disaster risk reduction	In progress	2020	\$135,000.00	UNDP	Funds committed	
		In progress	2018	\$5,965,000	UNDP	3 years	
7	Maximize the dissemination of Agricultural technologies (conservation agriculture /climate smart agriculture)	Funds committed	2016	\$ 6,000,000.00	FAO Agriculture is co-funding with coordination	4 years	YES



8	Sustainable use of water resources for irrigation, including the solar systems for water pumping	Funds committed	2019	\$ 56,000,000.00	WB Agriculture	4 years	YES
9	Support for the restoration of degraded sensitive ecosystems through ecosystem-based adaptation – coral reef, mangroves, estuaries, wetlands	To start soon	2016	EUR 6,000,000	AFD MTA is co-funding with coordination and mobilization	5 years	YES
		To start soon (Not committed)	2020	EUR 4,200,000		3 years	
10	K1-K19 and Q1 Support in the elaboration / review of sector waste policies and waste management plans at the municipal and district level	Funds committed	2017	EUR 500,000.00 (for supporting development of large project for waste management of about \$18 million)	AFD MTA and Maputo Municipal city are co-funding	5 years	



11	Institutional strengthening and capacity building and investment	Fund committee	2019	\$ 115,000,000.00	WB Ministry of Public Works, Housing and Water Resources Management is co-funding all efforts on water	4 years	
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Source: Mozambique – Country Engagement Update Report – 2020

The NDF and the WB are jointly preparing a full GCF funding proposal package for Maputo, the capital of Mozambique. The proposed intervention areas of focus are the informal settlements in Maputo including the city centre Baixa and the district of KaTembe that face growing challenges due to climate change and the high rates of poverty. More than 70% of Maputo's population resides in informal settlements with no drainage and poorly constructed houses, which drastically increases their vulnerability to high-intensity storms. Maputo is already highly vulnerable to sea level rise and coastal erosion under the present-day climate. The city centre is particularly vulnerable to sea level rise, resulting in seawater back-flowing through the drainage canals and flooding several areas. KaTembe has a vast natural environment area (mangroves, floodplains, beaches and coastal line) that functions as natural protection to climate events. However, due to the new urbanisation axis opened after the inauguration of the Maputo-KaTembe Bridge, this important natural environment could be destroyed due to informal urbanisation.<sup>33</sup>

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<sup>33</sup> <https://www.ndf.fi/news/support-green-climate-fund-proposal-development-mozambique>, retrieved 20/05/2020



## 8.2 Landscape of climate finance instruments in the country

The implementation of Mozambique's NDC is conditional on international support and has an estimated cost of at least \$11 billion. The international support is coming from Camoes Institute (from Portugal), the World Bank and the NDC Partnership, a group of 18 organisations comprising the African Development Bank (AfDB), the Belgian Embassy, the Delegation of the European Commission (EC), the Federal Republic of Germany (through GIZ and KfW), the French Development Agency (AFD), the Global Green Growth Institute (GGGI), the ICLEI-Local Governments for Sustainability, the International Labour Organization (ILO), the Spanish Cooperation, the Swedish Embassy and Sida, the United Nations Capital Development Fund (UNCDF), the United Nations Development Programme (UNDP), the United Nations Environment Program (UN Environment), the United Nations Food and Agricultural Organization (FAO), the United States Agency for International Development (USAID), the World Wildlife Fund for Nature (WWF), the World Bank, and the World Resources Institute (WRI). Almost all the institutions considered here work with the Government in the implementation of the climate action before the NDC Operationalization Plan. Both international and national climate change funds will support the implementation of the Mozambican NDCs. The number of such funds is large. Some are presented below:

- **Green Climate Fund (GCF):** a unique global platform, established by 194 governments, to respond to climate change by investing in low-emission and climate-resilient development. Given the urgency and seriousness of this challenge, GCF is mandated to make an ambitious contribution to the united global response to climate change. Annex 2.1 gives the list of projects approved by GCF for Mozambique.
- **Adaptation Fund (AF):** was established under the Kyoto Protocol of the UNFCCC and helps developing countries to build resilience and adapt to climate change. Activities carried out in the framework of Adaptation Fund in Mozambique in the period 2018-2019 are listed in Annex 2.2.
- **LDCF/GEF Fund:** was designed to address the special needs of the Least Developed Countries under the UNFCCC. As part of its mandate, the LDCF helps countries prepare and implement their NAPAs. Target sectors include water; agriculture and food security; health; disaster risk management and prevention; infrastructure; and fragile ecosystems. The fund is managed by the GEF. Annex 2.3 presents activities undertaken in Mozambique in the framework of LDCF/GEF fund.
- **National Fund for Sustainable Development (FNDS):** is a national fund endowed with administrative, financial and patrimonial autonomy, supervised by the Minister of Land, Environment and Rural Development. The FNDS arises from the global need to adopt sustainable development models that foresees the emergence of multilateral financing funds, in compliance with the SDGs approved by the UN, with emphasis on Climate change. Annex 6 presents projects undertaken by FNDS in the last years.



- **Sustainable Energy Fund for Africa (SEFA):** The Bank is working to deploy its new version of the Multi Trust Fund SEFA. SEFA is targeted to provide technical assistance, grants and concessional debt/equity to the private sector. For studies, the Bank can provide up to 75% grant funding. Private sector contribution should be a minimum of 25% of the investment and can be provided as in-kind contribution. Specific modalities of the new SEFA fund (conditions, ticket sizes, tenor, interest rates, budget, technologies, etc.) are not known. The Fund is expected to be fully operational by the end of 2020.
- **Fund for Sustainable Access to Renewable Energy (FASER):** is a result-based fund (RBF) facility with a budget of 3.8 M EUR. The programme is run by the Foundation for Community Development (FDC) and GIZ as part of the EnDev and Grüne Bürgerenergie (GBE) programmes. The Fund promotes the dissemination of high-quality energy technologies into off-grid peri-urban and rural areas, as well as an increased uptake of these technologies by women. RBF funds will be made available through different Calls for Proposals (first CfP closed in September 2019). FASER consists of three funding windows: Energy Access (focusses on promotion of decentralised solar technologies and Improved Cook Stoves); Productive Use (photovoltaic solar solutions and power equipment for commercial and agricultural businesses in rural areas exclusively) and a third window that specifically targets regions affected by humanitarian crises in Manica and Sofala Provinces, which have been hit by cyclone IDAI.
- **BRILHO:** DFID launched a 22.8M GBP energy programme targeting the SHS, Improved Cooking solutions (biomass/biofuels, biogas and LPG) and mini-grid sector in Mozambique. Its market development fund (MDF) will provide RBF and catalytic grant. Each company can get to 1 M GBP, absolute minimum is 50k GBP. The first CfP is planned for latest early February 2020 under which RBF will be deployed under a reverse auction system. Brilho has 14.6M GBP available for the private sector and expects to leverage 20M GBP private sector investments. For the catalytic grants they expect a 1:1 ratio and for the RBF a 1:3.
- **BCI Green Credit Line:** Currently, there is only one bank which offers a dedicated credit line for renewable energy and energy efficiency investments: the BCI. This bank is managing a KfW credit of 3M EUR, charging an interest rate of 15% (on lending from the Central Bank at 7.5%). Maximum corporate lending amount is 20M Mts, for individuals this is 5M Mts. The credit is not covered by a guarantee against default payments. BCI is also in the process of setting up a \$1m credit line targeting the agriculture sector (maximum ticket size \$50,000; interest of 7.5% p.a, customers are required to put in 25% equity at minimum – BCI will have a guarantee fund in place from the donor).
- **Africa Enterprise Challenge Fund / Renewable Energy and Adaptation to Climate Technologies in Sub-Saharan Africa (REACT SSA):** In Mozambique, SIDA and the Africa Enterprise Challenge Fund (AECF) launched the REACT SSA window in September 2018 aiming to catalyse private sector investment and innovations in the renewable energy sector and adaptation needs in the country. The 50m SEK million (4.8m EUR) REACT SSA window provides technical assistance and grant support and zero-interest loans to early-state businesses in Mozambique. The latest Call for Proposal attracted applications from various companies. REACT SSA is currently finalising contract negotiations with successful bidders.



- **Energy and Environment Partnership (EEP):** EEP provides early stage grant and catalytic debt financing for innovative clean energy projects, technologies and business models in several African countries. EEP Africa is hosted and managed by the Nordic Development Fund (NDF). The latest call for proposals closed in April 2019 and aimed at promoting gender inclusion. Funding partners for CfP15 included Austria, Finland and NDF. Under this call, applicants could apply for early-stage grants and repayable grants between 200,000 —500,000 EUR. The minimum required co-financing was 30% of the total project budget.
- **EIP EFSD<sup>34</sup>, Financial Guarantee:** The External Investment Plan (EIP), EU initiative launched in 2017, aims at attracting more investment from businesses and private investors in countries near the EU and in Africa lowering the risk of investing in key sectors or lending to small businesses. One of its 3 pillars is the European Fund for Sustainable Development (EFSD) financial guarantee. The EFSD guarantee is a key new feature of the EIP and is designed to mobilise private investment. Worth 1.54 billion EUR, the guarantee can (i) attract financing for some of the initial capital ('equity' or 'risk capital') a project needs to get off the ground and (ii) serve as a pledge (guarantee) to pay back part of a loan if a borrower incurs losses and defaults on it. One of the EIP's main priorities is to support farmers and people running businesses in the agriculture sector in partner countries and through the guarantees it facilitates lending to micro, small and medium-sized businesses (MSMEs) generating investment in rural areas.
- **African Guarantee Fund<sup>35</sup> (AGF):** AGF is a Pan-African financial institution, established in 2011, that promotes economic development by providing financial institutions with guarantees and other financial products intended to support Small and Medium-sized Enterprise in Africa. The fund is led by 5 stakeholders: DANIDA, AECID, African Development Bank (AFDB), AFD and NDF. The AGF can provide loan individual guarantees, loan portfolio guarantees, bank fundraising guarantees, equity guarantees and capacity development. AGF supports SMEs through financial institutions who as guaranteed parties, originate and own the SME relationships - it is the financial institutions and not SMEs, who request AGF for guarantee support. In the specific case of Mozambique (by December 2018), AGF has partnered with 2 Financial Institutions, with a total Guarantees issued of \$4.68m and Financing availed to SMEs of \$5.67m.

<sup>34</sup> Summaries of the EU External Investment Plan, Guarantees, March 2019

<sup>35</sup> <https://africanguarantefund.com/>, retrieved 04/06/2020



## 9. CHALLENGES FOR NDC IMPLEMENTATION AND GREEN INVESTMENTS

The COVID-19, which, if not resolved timely, may put at risk many development efforts. At the same time, Mozambique is recovering from Idai and Kenneth devastating cyclones impacts from early 2019 (Beira and Pemba), recovering from the non-declared international debts that determined the interruption of financial aid by the international funding agencies for few years and running against the clock to assure electricity access for all by 2030.

The country's main challenges include maintaining the macroeconomic stability considering exposure to commodity price fluctuations and re-establishing confidence through improved economic governance and increased transparency. Another major challenge for the economy is to diversify away from the current focus on capital-intensive projects and low-productivity subsistence agriculture towards a more diverse and competitive economy, while strengthening the key drivers of inclusion, such as improved quality education and health service delivery, which could in turn improve social indicators.

The private sector productivity factor is low, and the value addition is limited, both in manufacturing and agriculture. Agro-businesses are generally constrained by high transport costs due to poor infrastructure, including low access to energy, inefficient ports, increased logistic costs, and costly business environment (tax, corruption, administrative costs, etc.). This is reflected in both the World Economic Forum Global Competitiveness Index 2018 executive survey, where 'Access to Finance' and 'Corruption' remain the most binding constraints for doing business, as well as in the World Bank Doing Business 2018 Index, where 'Enforcing Contracts' and 'Getting Credit' are the most binding constraints in Mozambique.

Other significant constraints flagged by these Indices are inadequate supply of infrastructure services, inefficient government bureaucracy and inadequate educated workforce. Despite considerable expansion of the Mozambique's financial sector during the last decade, financial inclusion is low. Approximately 70% of Mozambicans are without a bank account at a formal financial institution, while formal credit is only available to 3% of the population. Liquidity in the system is uneven and the Central Bank was forced to bail out a major bank in 2016. Access to affordable finance remains the top challenge for business development as 75% of micro and SMEs are financially excluded, in particular in the rural areas.

The lack of domestic ability to invest in any development plan, makes the country highly dependent on external financial aid, either through a multilateral and bilateral partnerships or through loans from international aid/financial agencies. Additional to that, the heavy dependence on imports of goods and equipment for the implementation of development projects, is also an important barrier to a smooth planning and implementation of development plans. These limitations add to a lack of appropriate channels to facilitate imports and investments related to Sustainable Development and/or Climate/Green investments.



On the ground, in general, local commercial finance offered to investors in, for example, mini-grid sector, poorly matches the financing needs in terms of loan tenors and collateral requirements.

Local banks are still very hesitant to step up into the renewable energy space, especially in the absence of any guarantees to secure capital recovery. The bank encounters difficulties in deploying the funds due to (a) stringent internal appraisal criteria applied (120% collateral required), (b) the absence of any credit guarantee to mitigate the risk of default payments.

#### EXAMPLE:

#### REAL CHALLENGES OF AN IMPROVED COOKING STOVES MANUFACTURER IN MOZAMBIQUE IN 2020

- 1. Importing the raw material:** there are limitations on the importation (they currently import from South Africa and China). The main challenges are: when importing from China for example they must order big quantities which require high available capital (which is limited) and importation taxes do not meet the type of business (the final price must be low as to fulfil the rural areas' affordability).
- 2. Logistics of distribution:** as to be able to expand, new distribution lines shall be in place and the cost is high as to get to central and northern rural areas.
- 3. Marketing and awareness:** extra cost that would increase the business potential but is not in place yet as *Company X* goes door to door nowadays selling their product. They would need campaigns on awareness of improved cooking stoves and its benefits - reaching all inhabitants and educating them about the added value of consuming clean technologies.
- 4. Financing:** BCI has an available credit line which has just provided credit to two requests (from other companies). It is needed to have available and affordable credit lines (interest rates are very high). Also, guarantees are requested which the SMEs are incapable of bringing.
- 5. Technology:** Nowadays, the production is semi-industrial, and the *Company X* plans to get fully industrial soon. The constraint is that there are technologies / machines that do not exist in the market and they would need them as to do so. They would need the support of engineers to assist them on designing and manufacturing them.
- 6. Payment mechanisms:** the payments (clients to *Company X*) are done via bank transfer and via phone, and not all inhabitants have access to either of them (in certain rural areas) and/or the connection is not reliable (phone). They never got higher than a 10% non-payment, but this is due to many (and costly) back and forth (on logistics) for the collection of payments – long driving hours.



In general, the main country challenges are: limited technological capacity: (the country is totally dependent on imported technology), uncomprehensive and unclear regulatory framework for private sector participation, lack of climate change capacity in the private and public sector, lack of affordable capital, low access to electricity (lowering the potential for entrepreneurship), lack of infrastructure (no roads connecting the different regions making a barrier for upscaling businesses) and higher taxes on clean technologies than neighboring countries.

Specific sector challenges are, among others:

- **Energy efficiency:** lack of appropriate legal incentives for energy management and good practices. The national tariffs are centrally established and do not include incentives for different potential practices to secure energy efficiency and conservation, at the demand side.
- **Waste Management:** unfamiliarity with up-to-date Waste Treatment Technologies. So far, the country does not use any sound technology to process its MSW and, within the country, these technologies are hardly disseminated. Also, there is poor MSW collection network. One of the main barriers to secure a good MSW management system falls on the lack of infrastructure and other technical and technological means, by the national municipalities, to secure an appropriate waste management network.
- **Infrastructure:** lack of manpower for law enforcement. There is a gap in the Government capacity to impose regulations to a wide range of constructors due to low performance inspections. Technological skills limitations, as local expertise must be skilled in climate-proof construction of infrastructures such as buildings, roads and bridges to secure proper project implementation. Difficult restructuring / requalification of the existing vulnerable cities: the actual cities of Beira, Quelimane and Nacala are being impacted by sea level rise and in order to revert this risk, restructuring is needed. However, this is not a common procedure in Mozambique and its implementation will pose an enormous challenge.
- **Irrigation, Water Supply and Management:** Ineffective Water Resources Management. Mozambique is located at the downstream of all international rivers crossing the country. This presents challenges to the country in two different perspectives: regionally integrated and national water resources management. At regional level, floods and droughts must be properly dealt through the existing transnational rivers management Committees. Domestically, the lack of appropriate infrastructure to secure river flows management is an issue to resolve. However, none of the two would work if the other is not secured.



## 10. OPPORTUNITIES FOR NDC IMPLEMENTATION AND GREEN INVESTMENTS

The Mozambican NDC Operationalization Plan for 2020-2025<sup>36</sup> presents different projects for both mitigation and adaptation to Climate Change. Although the main investor is mentioned as being the Government, a great number of these projects can be implemented by different stakeholders other than the Government. It must be noted that the Government of Mozambique has not secured financial resources to implement such projects yet, relying in potential aid from international funding agencies or multilateral/bilateral partnerships.

The country presents opportunities for green investments given its strengths in (i) Appropriate legislation for specific sectors (although not comprehensive); (ii) High vulnerability to climate change and to green fundable project ideas; (iii) Comprehensive and fully detailed Nationally Determined Contribution (NDC) {although it is under revision}; (iv) Eligibility to all funding instruments under the UNFCCC and other multilateral sustainable development funding initiatives, among other reasons. However, there are weaknesses and threats to be resolved timely in order to optimise the strengths.

Key climate change projects are listed in annex 3.

### 10.1 Agribusiness-Afolu

The agribusiness-Afolu component of the NDC operationalization plan includes mainly the following activities:

- Provision of technologies and inputs suited to climate change;
- Diffusion of improved agricultural production technologies, agroforestry systems, natural resource management, conservation agriculture, irrigation, vaccinations, artificial insemination, reduction of post-harvest losses and processing of plant and animal products, including food and nutrition education;
- Regeneration of mangroves and implementation of protective measures for algae and sea grass, corals and other areas for breeding and feeding fish;
- Promotion of conservation agriculture / climate smart agriculture for fodder and food production;
- Promotion of the use of integrated agroforestry systems for the recovery of areas degraded by shifting agriculture;

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<sup>36</sup> Plano de Operacionalização da NDC de Moçambique 2020-2025; Novembro 2018



- Promotion of the use of methane from rice cultivation systems for energy production / improved low emission rice production systems.

## 10.2 Financial sector

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There are many funding mechanisms in the country and globally for climate change projects. Nevertheless very few organisations, particularly national private sector, have been making use of such resources. In order to contribute for a massive use of available funding mechanisms there is a need to:

- Promote diffusion of available financial mechanisms;
- Promote organisation of capacity building initiatives.

## 10.3 Green cities

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As far as green cities are concerned major activities foreseen in the NDC operationalization plan are as follows:

- Promotion of low carbon urbanization;
- Promotion of energy efficiency measures and development of renewable energy micro-generation projects and programs in commercial and residential buildings, including the use of efficient appliances;
- Popularisation of the use of Natural Gas in vehicles;
- Promotion of waste reduction, reuse and recycling;
- Elaboration and updating of climatically robust planning and spatial planning instruments and strengthening of their implementation;
- Reformulation of building codes for transport, telecommunications, energy distribution, buildings, hydraulic and wastewater treatment infrastructures in order to make them climate resilient.



## 10.4 Renewable Energy and Energy Efficiency

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The energy component of the NDC operationalization plan includes mainly investments in expansion of the national electricity generation based on renewable energy potential deployment such as hydropower (regular scale), wind and solar power plants.

Regarding energy efficiency, great impact on energy savings can be achieved through Industrial Energy Management (demand side) by conducting plant energy audits and implement energy efficiency and conservation measures, in the five more industrialized municipalities, Maputo, Matola (the greatest industrial park in the country), Beira, Nacala and Nampula. The project can later be replicated to other industrial parks and services throughout the country. This project would cost approximately \$15m. It would directly involve private sector and impact on the industry revenues, apart from enabling power savings. The national Directorate for Energy through its Department of Energy Efficiency would lead the implementation of this initiative. It is to notice though that energy efficiency as such is not part of the activities listed in the NDC operationalization plan (NDCOP) but rather, an initiative that the power utility sees as important to optimize power supply.

Another important issue in this item is about the promotion of combined measures of energy efficiency and integration of renewable energies in buildings working as residences, offices, among others. Governmental offices throughout the country and also offices of large companies represented in many parts of the country could be the first targets to be addressed. Presently the public company Ports and Railways Company of Mozambique (CFM), with support from the Eduardo Mondlane University and the private company EREL (Empresa de Energias Renovaveis do Limpopo, Lda), is implementing a pilot project in this line in Maputo, with the hope to get good results and replicate it in other parts of the country. Projects of this nature could be coordinated by the Ministry of Transport and Communications in collaboration with the National Directorate of Energy.



## 10.5 Waste Management

For MSW management technologies, and following the same approach, three technologies were selected such as landfill with biogas production, landfill bioreactor for biogas production, and Pyrolysis<sup>37</sup>. These three technologies allow thermal treatment not only of MSW but also of other types of waste provided they are organic, and the resulting biogas can be used for electricity generation and reduction of the volume of waste deposited.

For a country without a tradition of modern MSW management, these technologies will serve as a highly profitable MSW management model, while founding appropriate technologies to support the country's commitments under the NDCs. Priority will be given to the main cities which can be grouped to their neighboring townships. Five landfills have been identified such as Maputo Landfill (for Maputo, Matola and Boane), Beira Landfill (Beira and Dondo) while Nampula, Tete and Pemba would have non-shared landfills. The total cost of such projects is estimated to be around \$33m.

Both projects have a great potential for PPP within the local municipalities (through the National Municipalities Association, ANMM) and private sector.

## 10.6 Water and Water Irrigation

Mozambique has been cyclically hit by droughts which represents a threat to food security as well as to water supply. Thus, water management systems as well as water storage facilities to secure stable water supply and irrigation. There are 3 projects in the pipeline namely: water resources management, water storage national capacity development, hydraulic and irrigation systems (NDCOP). Additionally it could be attractive to gradually replace diesel based pumping systems from both boreholes and surface water by solar based ones, with implications in reduction of greenhouse gas emissions. Large greenhouse gas reductions could be achieved particularly in irrigation applications. Presently, the Governmental Body FUNAE (Energy Fund) in collaboration with a private company EREL (Empresa de Energias Renovaveis do Limpopo, Lda) and the Non-Governmental Organisation Caritas are undertaking a pilot solar irrigation project in the District of Chokwe. Thus, FUNAE in collaboration with the Ministry of Agriculture could coordinate this type of initiatives.

<sup>37</sup>Mozambique National Report on Technology Needs Assessment-Mitigation Technologies: Electricity Generation and MSW Management; DTU (MITADER) 2019;



## 10.7 Transport and Infrastructure

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The NDCOP includes, under this sector, urban transport projects meant to increase the number of Compressed Natural Gas (CNG) fueled vehicles and expand the CNG station network throughout the national territory. The CNG network expansion project is expected to assist the dissemination of CNG use in the public transportation and cargo as well as in the individual vehicles. NDCOP target is 25,000 individual vehicles by 2030 which would benefit from the expansion of the CNG along the N1, from Maputo to Beira – project budgets placed in the pipeline under this sector (annex 3) are estimations.

The NDCOP lists, under the infrastructure project section, different perspectives including i) the formulation of appropriate climate proof construction codes for transport, telecommunications, energy transport, buildings, hydraulic facilities, water treatment and other relevant public works; ii) climate action financing; iii) Property Climate insurance; iv) building resilience for some Mozambican erosion prone coastline cities; v) Mapping of erosion and soils sliding prone zones; vi) assessment of tourism infrastructure under coastal erosion threat; vii) coastal zones protection infrastructure, among others.



## 11. CONCLUSIONS AND RECOMMENDATIONS

### 11.1 Conclusions

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Climate change impacts and disasters are affecting Mozambique's social and economic sectors. Nowadays, the country's main development challenge is the pervasive poverty and inequality which are higher in climate change shocked regions, notably in rural areas where most of the population live, dependent on subsistence agriculture and disconnected from the centres of growth – and often from electricity, as only 30% of the population has access to it.

The country's main challenges include maintaining the macroeconomic stability considering exposure to commodity price fluctuations and re-establishing confidence through improved economic governance and increased transparency. Another major challenge for the economy is to diversify away from the current focus on capital-intensive projects and low-productivity subsistence agriculture towards a more diverse and competitive economy, while strengthening the key drivers of inclusion, such as improved quality education and health service delivery, which could in turn improve social indicators.

It is more than necessary to accelerate the country's structural transformation and industrialization, reduce the business transactions costs and address the skills gaps, building on its vast natural resource potentials, in order to generate jobs, naturally in the rural areas. The agriculture sector is a major employer, but it is characterized by subsistence farming with very low productivity. Concerning the achievement of the climate change and developing goals, the private sector must play a bigger roll.

The private sector in Mozambique is not well engaged in climate change projects, as it can be seen from the resources allocations from different funds presented in different sections of this study. Up to now, mainly international organizations and national public institutions have been benefiting from climate change funds. This is due to the low level of knowledge about sustainable development mechanisms and how to make them bankable - making it difficult for the national private sector to successfully access green funds because of cyclical political disorders creating an uncertain market, among others. It must be mentioned, though, that in many cases, these negative issues can be addressed if properly identified as barriers to development, since there are mechanisms in place to deal with them. Examples of this are the recently established Regulatory Agency of Energy, the revision of the new electricity law, the revision of the NDCs and the openness of the government to accommodate sound structural proposals. Things are moving forward.



## 11.2 Recommendations

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### 11.2.1. Reinforcement of climate change institutions

The National Climate Change Adaptation and Mitigation Strategy foresees the establishment of the Climate Change Network, of the Inter-institutional Group on Climate Change (GIIMC) and of the Climate Change Knowledge Management Centre (CGCMC). The Operationalization Plan of the NDCs foresees the formal establishment of these climate change mechanisms. Regarding GIIMC an active participation of the private sector, civil society and academia should be considered. With regards to the CGCMC, it is an entity hosted at the Mozambican Academy of Sciences (ACM) with the purpose of gathering knowledge dispersed in different institutions and with a view to serving as a generation center, repository and vector for the transmission of knowledge to various actors – as one of the major limitations of fighting climate change in Mozambique is the dispersion of information. Therefore, it is recommended to formally establish and strengthen the foreseen mechanisms as soon as possible.

### 11.2.2. Institutional stability

In line with the previous point, a key factor would be a long-term institutional stability (in terms of sectoral leadership) and dedicated personnel including technically knowledgeable advisers, to ensure mainstreaming of Climate Change country commitments in the national agenda.

### 11.2.3. Capacity building

It is important to highlight the prevailing lack of competent national human capital development plan (outside the HEIs). Successfully addressing Climate Change, demands regular capacity building (at the public and private level) in this regard for the policy and decision makers as well as regular update of the existing regulatory framework, vis-à-vis the development of the global, regional and national agenda.

### 11.2.4. Political instability

Although being very recent and most likely an issue to be resolved in few months, the political instability spots in the Central provinces of Manica and Sofala, as well as in the northern Province of Cabo Delgado, may become a threat to climate change advances, including the development of the gas industry in Cabo Delgado. Therefore, there is a need to address it as soon as possible.



#### 11.2.5. Effectiveness of financial instruments

Finally, an on-the-ground-study on why the current BCI credit line (the only one for renewable energy / energy efficiency, and soon one for agriculture) is not effective and how this can be changed (potential causes: high perception risk of innovative projects). Also, it would be relevant to know which interest rates would be acceptable for such credit lines - from the market (private sector) perspective.



## 12. REFERENCES

- AfDB, Mozambique Country Strategy Paper, 2018-2022
- B. C. Cuamba et al. 2008 "Challenges to Managing Floods and Droughts in Transboundary River Basins in Mozambique" in "Towards Climate Change Adaptation: Building Adaptive Capacity in Managing African Transboundary River Basins, Cases Studies from African Practitioners and Researchers", INWENT, Germany, December 2008, ISBN:978-3-939394-28-0
- Government of Mozambique, National Strategy for Adaptation and Mitigation of Climate Change, 2013-2025)
- Government of Mozambique, Operationalisation Plan of the NDC of Mozambique, 2018
- Government of Mozambique, National Report on Technology Needs Assessment-Mitigation Technologies: Electricity Generation and MSW Management; DTU (MITADER) 2019
- UN, National Reports Mozambique Waste Management, retrieved 20/05/2020 available at [https://sustainabledevelopment.un.org/content/documents/dsd/dsd\\_aofw\\_ni/ni\\_pdfs/NationalReports/mozambique/Waste\\_Management.pdf](https://sustainabledevelopment.un.org/content/documents/dsd/dsd_aofw_ni/ni_pdfs/NationalReports/mozambique/Waste_Management.pdf)
- P. Zhou, T. Simbini, B. C. Cuamba "The Assessment of the Impacts of Historical Extreme Weather Events on the Power Sector in Southern Africa", ESKOM Holdings Limited, Unpublished, 2012



## ANNEXES

### Annex 1. Mapping of key private sector developers (project developers, sponsors, investors, financial institutions)

NO.	BUSINESS	SECTOR	CONTACT AND TITLE	EMAIL /TELEPHONE	DOMAIN (A/M/A+M)
1	Project developer	Energy, environment and climate	Mr Boaventura Chongo Cuamba	<a href="mailto:boaventura.cuamba@gmail.com">boaventura.cuamba@gmail.com</a> 2,58823E+11	A+M
2	Project developer	Energy, environment and climate	Mr Alberto Julio Tsamba	<a href="mailto:aitsamba@gmail.com">aitsamba@gmail.com</a> 2,58823E+11	
3	Project developer	Energy, environment and climate	Mr Kemal Vaz	<a href="mailto:cva@verdeazul.co.mz">cva@verdeazul.co.mz</a> 2,58823E+11	A+M
4	Project Developer	Agriculture	Mr Francisco Santos	<a href="mailto:francisco.santos@jfs.co.mz">francisco.santos@jfs.co.mz</a>	
5	Project developer	Project developer	Mr Boris Atanassov	<a href="mailto:Atanassov.b@gmail.com">Atanassov.b@gmail.com</a> +258 843048334	A+M
6	Commercial Bank of Investment (BCI)	Bank	Mrs Epifania Gove	<a href="mailto:epifania.gove@bci.co.mz">epifania.gove@bci.co.mz</a> +258 821221918	



7	Banco Nacional de Investimento (BNI)	Bank	Mr. Julio Rafael	<a href="mailto:Julio.rafael@bni.co.mz">Julio.rafael@bni.co.mz</a>	A+M
			Mrs Ianifa Imbate	<a href="mailto:tomas.matola@bni.co.mz">tomas.matola@bni.co.mz</a>	
8	AMER	Private sector Association	Mr Ricardo Costa Pereira	<a href="mailto:ricardocostapereira@gmail.com">ricardocostapereira@gmail.com</a>	A+M

A= Adaptation, M=Mitigation, A+M= Adaptation and Mitigation



## Annex 2. Mapping of key public sector stakeholders

NO.	FOCAL AREA	SECTOR	CONTACT AND TITLE	EMAIL /TELEPHONE	DOMAIN (A/M/A+M)
1	Ministry of Land and Environment	Climate Change	Mrs Telma Manjate	Telma.manjate12@gmail.com/+258823286210	A+M
			Mrs Paula Panguene	paulapanguene@yahoo.com.br	A+M
2	Ministry of Mineral Resources and Energy	Energy	Mr Pascoal Bacela	Pbacela1@gmail.com/+258823108870	M
			Mr Misério Banze	miseriobanze@gmail.com	M
3	Cahora-Bassa Hydropower plant (HCB)	Hydropower	Mr Moisés Machava	Moises.machava@hcb.co.mz/+258843127720	M+A
4	Electricidade de Moçambique (EDM)	Energy	Mr Gulab Narendra	Ngulab@edm.co.mz/+258823001010	M
5	Ministry of Economy and Finances	Economy and Finances	Mr Albano Manjate	albanomanjate@gmail.com	A+M
6	National Institute of Disasters Management	Disasters risk reduction	Mr Bonifacio Antonio	bonyantonio@gmail.com	A



7	ARENE	Energy Regulator	Mr Erasmo Biosse	<a href="mailto:erasmo.biosse@yahoo.com.br">erasmo.biosse@yahoo.com.br</a>	A+M
8	FUNAE	Energy Fund	Mr Filipe Mondlane	<a href="mailto:filipecmondlane@funaе.co.mz">filipecmondlane@funaе.co.mz</a>	A+M
9	Get Invest	Programme support for green investment			A+M
10	EU Delegation				A+M
11	NORAD				A+M
12	SIDA				A+M
13	UNDP / UNIDO	International organisation	Mr Vicente Matsinhe	<a href="mailto:v.matsinhe@unido.org">v.matsinhe@unido.org</a>	A+M
14	World Bank				A+M
15	Italian Cooperation				A+M
16	DFID				A+M
17	Agência de Desenvolvimento do Vale do Zambeze	Social and economic development	Mr Roberto Albino	<a href="mailto:Albino.roberto@gmail.com">Albino.roberto@gmail.com</a>	A+M



18	ADA				A+M
19	ENABEL				A+M
20	IFC				A+M
21	GCF				A+M
22	FNDS				A+M



### Annex 3. List of projects approved by GCF for Mozambique in the period 2016-2019

N° ORDE R	PROJECT NAME	STATE POINT	DAT A	TOTAL REQUESTED AMOUNT AND CURRENCY	WHICH INSTITUTION WILL IMPLEMENT	ANTICIPATE D DURATION	PRIVATE SECTOR PARTICIPATIO N (YES/NO)
1	Strategic frameworks support for Mozambique through GGGI	Approved readiness proposal	24 Dec 2019	\$600, 545	<u>Global Green Growth Institute - GGGI</u>	<u>18 months</u>	
2	Blue Action Fund (BAF): GCF Ecosystem Based Adaptation Programme in the Western Indian Ocean	Approved funding proposal	04 Dec 2019	30 million Euros	Blue Action Fund, foundation registered in Germany, according to German law for foundations.	on period 7 years Total lifespan 25years	YES
3	Climate-resilient food security for women and men smallholders in Mozambique through integrated risk management	Approved funding proposal	04 Dec 2019	\$9.25m Total +Co-financing 10 million	World Food Programme (WFP)	10 years	YES



4	Climate-resilient food security for women and men smallholders through integrated system-based risk management	Concept note	07 Sep 2018	9,000,000+co+financin g \$1,000,000	World Food Programme (WFP)	5years	
5	NDA Strengthening and Country Programming support for Mozambique through FNDS	Approved readiness proposal 1	Nov 2017	\$300,000	Sustainable Development Fund (FNDS)	1year	
6	Securing vulnerable coastal and marine livelihoods in Mozambique against climate-change hazards	UNEP Concept note	22 Dec 2016	\$9 million financing \$1,000,000	World Food Programme (WFP)	5years	



#### Annex 4. Projects under the scope of adaptation fund in Mozambique

Nº ORDER	PROJECT NAME	STATE POINT	DATA	TOTAL REQUESTED AMOUNT AND CURRENCY	WHICH INSTITUTION WILL IMPLEMENT	ANTICIPATED DURATION	PRIVATE SECTOR PARTICIPATION (YES/NO)
1	Mozambique: Grant Proposal for South-South Cooperation: NEMA	Approved Readiness Grants	4 December 2019	\$50,000	National Environment Management Authority (NEMA)	<u>9 months</u> <u>January to September 2020)</u>	
2	Building urban climate resilience in south-eastern Africa:  Madagascar, Malawi, Mozambique, Comoros (Fully-developed Project Document; United	Approved fully-developed regional project	15 July 2019	\$13,997,423	United Nations Human Settlements Programme (UN-Habitat)  <b>Executing Entities:</b> For regional coordination purposes: Disaster Risk Reduction Unit of the Southern Africa Development Community (SADC), in partnership with	4 years	YES



	Nations Human Settlements Programme (UNHabitat);				DiMSUR: Technical Centre for Disaster Risk Management, Sustainability and Urban Resilience <b>For national level activities:</b> National Government Entities; <b>For city level activities:</b> Oxfam International (in cooperation with municipalities, local NGOs and communities) and sub-contractors		
3	Strengthening Adaptive Capacities for Smallholder Farmers in Water Stressed River Basins in Southern Africa (Angola, Mozambique, Namibia, South Africa, Zimbabwe)	No Information	9 January 2019	\$14 Millions	United Nations Educational Scientific and Cultural Organization (UNESCO)  <b>Executing Entities:</b> Food Agricultural Organization on the United Nations (FAO) and Food Agriculture Natural Resources Policy Analysis Network (FANRPAN)	2years	YES



4	National Natural Capital Programme <sup>38</sup> to "harness resilient ecological infrastructure for systemic climate adaptation of cities, communities and industries, with blended finance and women/youth entrepreneurs	Approved	12 March 2018	\$9,999,400	African Development Bank Group (AfDB)  <b>Executing Entities:</b> Ministry of Land, Environment and Rural Development (MITADER), Ministry of Economy and Finance, World Wide Fund for Nature (WWF)	2 years	YES
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Source: <https://www.adaptation-fund.org/document/approval-of-south-south-grant-cooperation-mozambique-nema/>

<sup>38</sup> The proposed programme seeks to harness resilient ecological infrastructure to transform built infrastructure, cities, communities, industries and ecosystems into inclusive, productive and climate resilient systems. It includes three Components:

Component 1 - Increase blended finance and women/youth entrepreneurship opportunities for climate resilient investments in technology, energy, water, and food systems, and forestry, tourism, housing and transport.

Component 2 - Improve the climate resilience and productivity of ecological infrastructure and technology vital to rural and urban energy, water, housing, transport and coastal protection, and AFB/PPRC.22/8 agriculture, fisheries and tourism.

Component 3 - Strengthen private sector and public sector institutional



## Annex 5. Projects under the scope of GEF and LDCF in Mozambique

Nº ORDER	PROJECT NAME	STATE POINT	DATA	TOTAL REQUESTED AMOUNT AND CURRENCY	WHICH INSTITUTION WILL IMPLEMENT	ANTICIPATED DURATION	PRIVATE SECTOR PARTICIPATION (YES/NO)
1	<p>UNCCD 2018 national reporting process - Umbrella I</p> <p><b>Project Objective:</b> To enable country Parties to collect necessary biophysical, socioeconomic data, establish sound reporting and monitoring systems at national level and report against the UNCCD Strategy<sup>39</sup></p> <p>Area-Land Degradation</p> <p>Fund Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>01 Apr 2018</p> <p>GEF- 6</p>	<p>GEF Project Grant \$ -1,981,737</p> <p>Co-financing Total \$ -336,000</p> <p>GEF Agency Fees \$-188,265</p> <p>Total Cost \$-2,317,737.00</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencies:</b> National Focal Points</p>	<p>24 Months</p>	

<sup>39</sup> Based on the deliberations of the Committee for the Review of the Implementation of the Convention at its fifteenth session held in October 2016 and subject to the decisions to be taken by the Conference of Parties at its thirteenth session in 2017.



2 Sustainable Forest Management Impact Program on Dryland Sustainable Landscapes<sup>40</sup>

Fund Source- GEF Trust Fund

Country Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)	Concept Proposed	01 Jun 2019	Food and Agriculture Organization	Executing Agencies:	Public and Private institutions, research institutes, CSO Organizations	60 Months
Land Degradation	LD STAR Allocation	4,100,917	369,083	4,470,000	GEF-7					

<sup>40</sup> Co-Financier Mozambique: private sector Peace Parks Foundation and other CA co-managers will contribute with \$20,000,000



	Biodiversity	BD STAR Allocation	9,941,464	894,732	10,836,196							
	Climate Change	CC STAR Allocation	1,908,257	171,743	2,080,000							
	Multi Focal Area	IP SFM Drylands Set-Aside	7,165,138	644,862	7,810,000							
3	Integrated Transboundary River Basin Management for the Sustainable Development of the Limpopo River Basin (Regional- Botswana, Mozambique <sup>41</sup> , South Africa, Zimbabwe)					Concept Approved	01 Dec 2019 GEF - 7	GEF Project Grant \$6,000,000 Co-financing Total \$18,610,000 GEF Agency Fees \$570,000	United Nations Development Programme  <b>Executing Agencies:</b> Global Water Partnership –	54 Months	YES	
	Fund Source- GEF Trust Fund											

<sup>41</sup> Co-financing for the project Gov osf Mozambique Grant Investment Mobilized 1,000,000  
Co-financing for the project Gov osf Mozambique in-kind Recurrent Expenditures 480,000



				Total Cost \$24,610,000.00	Southern Africa (GWP-SA)		
4	<p>Scaling up local adaptation and climate-risk informed planning for resilient livelihoods</p> <p>Funding Source- Least Developed Countries Fund</p>	<p>Concept Approved</p>	<p>01 Dec 2018</p> <p>GEF-7</p>	<p>GEF Project Grant \$8,932,420</p> <p>Co-financing Total \$43,000,000</p> <p>GEF Agency Fees \$848,580</p> <p>Total Cost \$51,932,420.00</p>	<p>United Nations Development Programme</p> <p><b>Executing Agencies:</b> MITADER (Ministry of Land, Environment and Rural Development)</p>		YES
5	<p>Enhancing Legislative, Policy, and Criminal Justice Frameworks for Combating Poaching and Illegal Wildlife Trade in Africa</p> <p>Focal Area- Biodiversity</p> <p>Fund Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>27 Aug 2017</p> <p>GEF-6</p>	<p>GEF Project Grant \$1,000,000</p> <p>Co-financing Total \$1,105,000</p> <p>GEF Agency Fees \$95,000</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencies:</b> Conservation Council of Nations (CCN)</p>	<p>18 Months</p>	YES



				Total Cost \$2,105,000.00			
6	<p>Support to Preparation of the Interim National Report on the Implementation of the Nagoya Protocol</p> <p>Focal Area-Biodiversity</p> <p>Funding Source-GEF Trust Fund</p>	<p>Project Approved</p>	<p>21 Aug 2017</p> <p>GEF-6</p>	<p>GEF Project Grant \$1,430,000</p> <p>Co-financing Total \$1,111,321</p> <p>GEF Agency Fees \$135,850</p> <p>Total Cost \$2,541,321.00</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencies:</b> National Executing Agencies</p>	12 Months	
7	<p>Support to Eligible Parties to Produce the Sixth National Report to the CBD – (Global: Africa-3, Maldives, Nicaragua, Pakistan and Solomon Islands)</p> <p>Focal Area- Biodiversity</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>01 Jun 2017</p> <p>GEF - 6</p>	<p>GEF Project Grant \$1,963,500</p> <p>Co-financing Total \$1,129,495</p> <p>GEF Agency Fees \$186,533</p> <p>TotalCost</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencie:</b> UNEP</p>	24 Months	



				\$3,092,995.00			
8	<p>Towards Sustainable Energy for All in Mozambique: Promoting Market-Based Dissemination of Integrated Renewable Energy Systems for Productive Activities in Rural Areas</p> <p>Focal Area- Climate Change</p> <p>Funding Source- GEF Trust Fund</p>	Project Approved  GEF - 6	14 Sep 2015	Project Preparation Grant Amount \$82,192  GEF Project Grant \$2,851,384  Co-financing Total \$11,284,997  GEF Agency Fees \$270,881  Total Cost \$14,218,573.00	United Nations Industrial Development Organization  Executing Agencies: Ministry of Land, Environment and Rural Development (MITADER), Ministry of Agriculture and Food Security, Ministry of Energy and Mines Resources, Environment Fund (FUNAB), Energy Fund (FUNAE), Mozambique National Cleaner Production	48 Months	YES



					Center (MNCPO).		
9	<p>Strengthening the Conservation of Globally Threatened Species in Mozambique through Improving Biodiversity Enforcement and Expanding Community Conservancies around Protected Areas</p> <p>Focal Area- Biodiversity, Land Degradation</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p> <p>07 Jun 2017</p> <p>GEF - 6</p>	<p>Project Preparation Grant Amount</p> <p>\$300,000</p> <p>GEF Project Grant</p> <p>\$15,750,000</p> <p>Co-financing Total</p> <p>\$64,800,000</p> <p>GEF Agency Fees</p> <p>\$1,417,500</p> <p>Total Cost</p> <p>\$80,850,000.00</p>	<p>United Nations Development Programme</p> <p>Executing Agencies: Implementing Partners:</p> <p>National Agency for Conservation Areas (ANAC) under the Ministry of Land, the Environment and Rural Development (MITADER); Gorongosa Restoration Project (GRP) and Wildlife Conservation Society (WCS)</p>		6 years	



10	Support to Preparation of the Interim National Report on the Implementation of the Nagoya Protocol	Project Approved	17 May 2015 GEF- 6	GEF Project Grant \$1,430,000 Co-financing Total \$1,111,321 GEF Agency Fees \$135,850 Total Cost \$2,541,321.00	United Nations Environment Programme <b>Executing Agencies:</b> National Executing Agencies	12 Months	
11	Preparation of Intended Nationally Determined Contribution (INDC) to the 2015 Agreement under the United Nations Framework Convention on Climate Change (UNFCCC)  Focal Area- Climate Change  Funding Source- GEF Trust Fund	Project Approved	09 Mar 2015 GEF - 6	GEF Project Grant \$1,800,000 Co-financing Total \$180,000 GEF Agency Fees \$171,000 Total Cost \$1,980,000.00	United Nations Environment Programme <b>Executing Agencies:</b> National Governments	10 Months	



12	<p>National capacity and capability improved for the management of mercury, through the preparation of a National Action Plan (NAP) for the Artisanal and Small-scale Gold Mining (ASGM) sector</p> <p>Focal Areas-Chemicals and Waste</p> <p>Funding Source-GEF Trust Fund</p>	<p>Project Approved</p>	<p>16 Apr 2015</p> <p>GEF - 6</p>	<p>GEF Project Grant \$500,000</p> <p>Co-financing Total \$84,000</p> <p>GEF Agency Fees \$47,500</p> <p>Total Cost \$584,000.00</p>	<p>United Nations Industrial Development Organization</p> <p><b>Executing Agencies:</b></p> <ul style="list-style-type: none"> <li>- Ministry of Mineral Resources (MIREM);-</li> <li>Ministry for Coordination of Environmental Affairs (MICOA)-</li> <li>Ministry of Health (MISAU)-</li> <li>World Health Organization (WHO).</li> </ul>	<p>24 Months</p>	<p>YES</p>
13	<p>Mozambique: Building Resilience in the Coastal Zone through Ecosystem Based Approaches to Adaptation (EbA)</p> <p>Focal Area - Climate Change</p>	<p>Project Approved</p>	<p>24 Jan 2019</p>	<p>Project Preparation Grant Amount \$100,000</p>	<p>United Nations Environment Programme</p>	<p>60 Months</p>	<p>YES</p>



	Funding Source- Least Developed Countries Fund		GEF-6	GEF Project Grant \$6,000,000  Co-financing Total \$22,900,328  GEF Agency Fees \$570,000  Total Cost \$29,000,328.00	<b>Executing Agencies:</b> MITADER/FNDS		
YES14	<p>Strengthen national decision making towards ratification of the Minamata Convention and build capacity towards implementation of future provisions</p> <p>Focal Area- Chemicals and Waste</p> <p>Funding Source- GEF Trust Fund</p>	Project Approved	24 Feb 2015 GEF - 6	GEF Project Grant \$1,000,000  GEF Agency Fees \$95,000  Total Cost \$1,000,000.00	United Nations Development Programme  <b>Executing Agencies:</b> UNITAR	24 Months	



15	<p>Umbrella Programme for Biennial Update Report to the United National Framework Convention on Climate Change (UNFCCC)</p> <p>Focal Area- Climate Change</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>23 Jun 2015</p> <p>GEF- 6</p>	<p>GEF Project Grant \$14,414,400</p> <p>Co-financing Total \$1,393,400</p> <p>GEF Agency Fees \$1,297,296</p> <p>Total Cost \$15,807,800.00</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencies:</b> 39 National Governments</p>	<p>24 Months</p>	
16	<p>Knowledge for Action: Promoting Innovation Among Environmental Funds</p> <p>Focal Area- Biodiversity</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>13 Oct 2015</p> <p>GEF- 5</p>	<p>GEF Project Grant \$913,240</p> <p>Co-financing Total \$3,854,050</p> <p>GEF Agency Fees \$86,758</p> <p>Total Cost \$4,767,290.00</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agency:</b> RedLAC and CAFE networks</p>	<p>36 Months</p>	



17	<p>Payment for Ecosystem Services to Support Forest Conservation and Sustainable Livelihoods</p> <p>Focal Areas- Climate Change, Biodiversity</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>20 Oct 2016</p>	<p>Project Preparation Grant Amount \$136,986</p> <p>GEF Project Grant \$3,637,748</p> <p>Co-financing Total \$37,600,000</p> <p>GEF Agency Fees \$345,586</p> <p>Total Cost \$41,374,734.00</p>	<p>Food and Agriculture Organization</p> <p><b>Executing Agencies:</b> Ministry of the Coordination of Environmental Affairs National Directorate of Environmental Management Ministry of Agriculture National Directorate of Land and Forests Ministry of Tourism (National Directorate of Conservation Areas)</p>	<p>60 Months</p>
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18	<p>Disposal of PCB Oils Contained in Transformers and Disposal of Capacitors Containing PCB in Southern Africa</p> <p>Focal Area - Persistent Organic Pollutants</p> <p>Funding Source- GEF Trust Fund</p>		<p>31 May 2016</p> <p>GEF - 5</p>	<p>Project Preparation Grant Amount \$90,000</p> <p>GEF Project Grant \$7,710,000</p> <p>Co-financing Total \$33,661,319</p> <p>GEF Agency Fees \$732,450</p> <p>Total Cost \$41,461,319.00</p>	<p>United Nations Environment Programme</p> <p><b>Executing Agencies:</b> Africa Institute (Basel Convention and Stockholm Convention regional centre) in cooperation with UNEP/DTIE</p>	60 Months	
19	<p>Western Indian Ocean Large Marine Ecosystems Strategic Action Programme Policy Harmonization and Institutional Reforms (SAPPHIRE)</p> <p>Focal Areas- International Waters</p> <p>Funding Source- GEF Trust Fund</p>	<p>Project Approved</p>	<p>11 Jul 2016</p> <p>GEF- 5</p>	<p>Project Preparation Grant Amount \$300,000</p> <p>GEF Project Grant \$10,976,891</p>	<p>United Nations Development Programme</p> <p><b>Executing Agency:</b> Government</p>	66 Months	



				Co-financing Total \$333,428,294		
				GEF Agency Fees \$987,920		
				Total Cost \$344,705,185.00		

Source: <https://www.thegef.org/project/sustainable-forest-management-impact-program-dryland-sustainable-landscapes>



## Annex 6. National Development Fund (FNDS)

Nº ORDER	PROJECT NAME	STATE POINT	DATA	TOTAL REQUESTED AMOUNT AND CURRENCY	WHICH INSTITUTION WILL IMPLEMENT	ANTICIPATED DURATION
1	A District. A bank <sup>42</sup> “Um Distrito. Um Banco”	Approved	2016	Mzn 480,295,267.00	MITADER / FNDS	<u>4 years</u>
2	Sustenta <sup>43</sup>	Approved		\$40 millions	FNDS	10 years
3	Landfill for Maputo <sup>44</sup> and Matola Cities “Aterro Sanitário Maputo e Matola”	Approved		Gov Mozambique: \$12.204.000,00  KoreaEximBank: \$48.621.000,00		30 months (construction of the landfill)
4	Mozbio II	Approved	September 20 2019 - 2023	\$45 millions  World Bank (IDA)	MITADER	4 years

<sup>42</sup> The “One District, One Bank” Project aims to accelerate the banking process in rural areas, with a view to ensuring full coverage of the country’s banking network.

To this end, the Government will provide financial institutions with facilities for the installation and establishment of branches in 72 districts, within a period of 4 years.

This process aims to ensure compliance with the Government’s Five-Year Plan 2015-2019, which calls for the sustainable development of essential and vital socio-economic infrastructures for promoting the productive activity of the private and associative sector, as well as increasing the capacity of the public sector, to provide basic social services to the population.

<sup>43</sup> The SUSTENTA Project aims to contribute to the integration of rural families in sustainable agriculture and value chains and will directly benefit:

About 125,000 rural families, representing around 700,000 individuals, in the target districts that use agricultural and forestry resources for their livelihood;

A network of 200 Emerging Commercial Small Farmers;

A network of 50 small and medium-sized agribusiness companies;

Local government institutions;

Improvement of infrastructure and economic opportunities;

Much of the population will have the indirect benefit of protecting natural assets, downstream.

<sup>44</sup> Provide an environmentally friendly waste treatment and deposition infrastructure with a focus on technology transfer



5	MozLand <sup>45</sup> “Terra Segura” Mozambique through FNDS	Approved	2018-2024	\$100 millions World Bank	MITADER	5 years
6	REDD+ <sup>46</sup> “Redução de Emissões por Desmatamento e Degradação Florestal”	Approved	2016-2030	\$8.6 million Forest Carbon Partnership Facility (FCPF)	MITADER	6 years
7	MozFIP <sup>47</sup> - Mozambique Forest Investment Project	Approved Investment Project Financing	07-Mar- 2017	\$47 millions  Strategic Climate Fund Credit 13.20  Strategic Climate Fund Grant 8.80  IDA-59590 15.00  Integrated Landscape and Forest Management MDTF 10.00  Total 47.00	MITADER	5 years

<sup>45</sup> The objective of the Project development (ODP) is to strengthen land tenure security in selected districts and improve the efficiency and accessibility of land administration services.

<sup>46</sup> The objective is to reduce the causes of climate change through a series of actions that include avoiding deforestation and forest degradation, promoting sustainable forest management, promoting the conservation of ecosystems and biodiversity, increasing carbon reserves, among other actions. The REDD mechanism can simultaneously address climate change and rural poverty, while conserving biodiversity and supporting vital environmental services.

<sup>47</sup> MozFIP is part of the National Sustainable Development Program and the “Standing Forest” Project with a view to promoting integrated development in rural areas, prioritizing actions to reduce deforestation, through the sustainable use of forest resources, land organization and environmental management. The objectives are: To improve the practices and management of lands and forests at the national level and to have an impact on (i) the development of family farming and (ii) sustainable management of natural resources, valuing timber and non-timber products at the landscape level.



8	MozDGM – “Mecanismo de Doação Dedicado às Comunidades Locais”			\$4.5 millions  Forest Investment Program (FIP)	Civil Society Organizations / Local Communities	5 years
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