



Report No: PAD4237

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED CREDIT

IN THE AMOUNT OF SDR 104.5 MILLION  
(US\$150.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MOZAMBIQUE

FOR A

NORTHERN MOZAMBIQUE RURAL RESILIENCE PROJECT

May 27, 2021

Environment, Natural Resources and The Blue Economy Global Practice  
Easternn and Southern Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2021)

Currency Unit = New Mozambique Metical (MZN)

MZN 59.70 = US\$1

US\$1 = SDR 0.6964

## FISCAL YEAR

January 1 - December 31

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## ABBREVIATIONS AND ACRONYMS

ADIN	Integrated Northern Development Agency
ADNAP	National Fisheries Administration
ANAC	National Administration of Conservation Areas
APAIPS	Environmental Protection Area of Ilhas Primeiras e Segundas
AQUA	Agency for Environmental Quality and Control
CA	Conservation Area
CBO	Community-Based Organization
CCP	Community Fishing Council ( <i>Conselho Comunitário da Pesca</i> )
CDD	Community Driven Development
CDDF	Community Demand Driven Fund
CDDMU	CDD Management Unit
CEPCI	Citizen Promotion Center ( <i>Centro de Promoção a Cidadania</i> )
CO <sub>2</sub>	Carbon Dioxide
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
DA	Designated Account
DINAF	National Directorate of Forests
DNDEL	National Directorate of Local Economic Development
DNOP	National Directorate of Operations
EFA	Economic and Financial Analysis
EIRR	Economic Internal Rate of Return
ESCP	Environmental and Social Commitment Plan
ESDDP	Economic and Social District Development Plan
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
EX-ACT	Ex-Ante Carbon-balance Tool
FAO	Food and Agriculture Organization
FCV	Fragility, Conflict, and Violence
FM	Financial Management
FMS	Financial Management Specialist
FMU	Forest Management Unit
FNDS	National Sustainable Development Fund
FNS	Food and Nutrition Security
GALS	Gender Action Learning System
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoM	Government of Mozambique
GRM	Grievance Redress Mechanism

GRS	Grievance Redress Service
IAASB	International Auditing and Assurance Standards Board
IDP	Internally Displaced Person
IFR	Interim Financial Report
IGF	General Inspectorate of Finance ( <i>Inspeção Geral das Finanças</i> )
ILM	Integrated Landscape Management
IMF	International Monetary Fund
INTOSAI	International Organization of Supreme Audit Institutions
IPCC	Intergovernmental Panel on Climate Change
IPF	Investment Project Financing
IUU	Illegal, Unreported and Unregulated
LAP	Local Adaptation Plan
LMP	Labor Management Procedures
LNG	Liquefied Natural Gas
M&E	Monitoring and Evaluation
MADER	Ministry of Agriculture and Rural Development
MAF	Financial Management Manual ( <i>Manual de Administração Financeira</i> )
MCS	Monitoring, Control, and Surveillance
METT	Management Effectiveness Tracking Tool
MIMAIP	Ministry of Sea, Inland Waters and Fisheries
MPS	<i>Mais Peixe Sustentável</i>
MRV	Measurement, Reporting, and Verification
MSMEs	Micro, Small, and Medium Enterprises
MTA	Ministry of Land and Environment
NGACBP	Next Generation Africa Climate Business Plan
NDC	Nationally Determined Contribution
NGO	Nongovernmental Organization
NNR	Niassa National Reserve
NPV	Net Present Value
NRM	Natural Resources Management
NTFP	Non-Timber Forest Product
PDO	Project Development Objective
PEF	Pandemic Emergency Facility
PFS	Project Financial Statement(s)
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PLR	Performance and Learning Review
PMI	Purchasing Manager's Index
PPSD	Project Procurement Strategy for Development
PSC	Project Steering Committee
PRA	Prevention and Resilience Allocation
PROMURA	<i>Association to Protect Women and Girls (Associação de Proteção a Mulher e Rapariga)</i>
RHA	Risk Hazard Assessment

RPF	Resettlement Policy Framework
RRA	Risk and Resilience Assessment
SCD	Systematic Country Diagnostic
SDAE	District Service for Economic Activities ( <i>Serviço Distrital de Actividades Economicas</i> )
SDPI	District Services for Infrastructure and Planning ( <i>Serviço Distrital de Planeamento e Infraestrutura</i> )
SEA	Sexual Exploitation and Abuse
SECF	Small Emerging Commercial Farmer
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SMEs	Small and Medium Enterprises
SPA	Provincial Services of Environment ( <i>Servicios Provinciais do Ambiente</i> )
SREP	Sustainable Rural Economy Project
STEP	Systematic Tracking of Exchanges in Procurement
SWIFT	Survey of Wellbeing via Instant and Frequent Tracking
TFCA	Trans-Frontier Conservation Areas
TOR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
WBG	World Bank Group
WCS	Wildlife Conservation Society
WFP	World Food Program



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## DATASHEET

**BASIC INFORMATION**

Country(ies)	Project Name	
Mozambique	Northern Mozambique Rural Resilience Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P174635	Investment Project Financing	High

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input checked="" type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
18-Jun-2021	30-Jun-2026

Bank/IFC Collaboration

No

**Proposed Development Objective(s)**

The project development objective is to improve access to livelihoods opportunities for vulnerable communities and management of natural resources in selected rural areas of Northern Mozambique.

**Components**

Component Name	Cost (US\$, millions)
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Improving Access to Livelihoods and Community Infrastructure	98.80
Improving Management of Natural Resources	41.50
Multi-stakeholder Coordination and Project Management	9.70
Contingency Emergency Response	0.00

**Organizations**

Borrower:	Republic of Mozambique
Implementing Agency:	ProAzul National Sustainable Development Fund (FNDS) BioFund

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

Total Project Cost	150.00
Total Financing	150.00
of which IBRD/IDA	150.00
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Development Association (IDA)	150.00
IDA Credit	150.00

**IDA Resources (in US\$, Millions)**

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Mozambique	150.00	0.00	0.00	150.00
National PBA	150.00	0.00	0.00	150.00
Total	150.00	0.00	0.00	150.00





## INSTITUTIONAL DATA

### Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

### Contributing Practice Areas

Agriculture and Food, Climate Change, Fragile, Conflict & Violence, Social Sustainability and Inclusion

### Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● High
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● High
8. Stakeholders	● Moderate
9. Other	
10. Overall	● High

## COMPLIANCE

### Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No



Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

### Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE:** For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

### Legal Covenants

#### Sections and Description

Schedule 2. Section I. A. 4.

The Recipient, through FNDS, shall appoint the Project coordinator, the environmental team, the financial management specialist and the accountant mentioned in Section 1(a) not later than 30 days after the Effective Date.

#### Sections and Description

Schedule 2. Section I. A. 5.



The Recipient through MADER shall establish, not later than 60 days after Effectiveness Date, and maintain, throughout the implementation of the Project, a steering committee ("Project Steering Committee"), with a composition, mandate, and resources satisfactory to the Association and detailed in the PIM.

#### Sections and Description

##### Schedule 2. Section I. C.1.(a).

The Recipient, not later than 30 days after the Effective Date, shall cause FNDS to prepare and adopt, a Project implementation manual ("PIM") in accordance with terms of reference acceptable to the Association.

#### Sections and Description

##### Schedule 2. Section I. C.1.(b).

The Recipient, not later than 30 days after the Effective Date, shall cause FNDS to prepare and adopt, an implementation manual for the CDD ("CDD Manual"), with rules, eligibility criteria, accountability mechanisms and role of agencies and stakeholders involved in the implementation of Part 1(a) of the Project, in accordance with terms of reference acceptable to the Association.

#### Conditions

Type Effectiveness	Financing source IBRD/IDA	Description The Subsidiary Agreements have been executed on behalf of the Recipient and FNDS, ProAzul and BIOFUND respectively, in accordance with terms and conditions satisfactory to the Association.
Type Effectiveness	Financing source IBRD/IDA	Description The Recipient has adopted the Security Risk Management Plan and the Social Risk Mitigation Strategy, in a manner acceptable to the Association.
Type Disbursement	Financing source IBRD/IDA	Description No withdrawal shall be made under Category (4), unless and until the CDD Manual and the SECF Grants and Mais Peixe Sustentável Matching Grants annexes to be included in the PIM have been adopted by FNDS, ProAzul in a form acceptable to the Association.
Type Disbursement	Financing source IBRD/IDA	Description No withdrawal shall be made for Emergency Expenditures under Category (6), unless and until the following condition has been met in respect of said expenditures: the Recipient has determined that an Eligible Crisis or Emergency has occurred, and has furnished to the Association a request to withdraw Financing amounts under Category (6); and the Association has agreed with such determination, accepted said request and notified the Recipient



		thereof; and the Recipient has adopted the CERC Manual and Emergency Action Plan, in form and substance acceptable to the Association.
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## STRATEGIC CONTEXT

### A. Country Context

**1. Mozambique occupies an area of 800,000 km<sup>2</sup>, with about 2,700 km of coastline along the southwestern rim of the Indian Ocean.** The country has a population of 31 million, about 67 percent of which live and work in rural areas, and 68 percent of whom are ages 25 or younger (2020). Mozambique is also strategically located, bordering six countries—four of them landlocked and dependent on the country's three deep seaports as a conduit to the global market.

**2. Despite significant economic growth and macroeconomic stability over the last two decades, growth in Mozambique has not been inclusive and has not translated into broad poverty reduction.** Although the country enjoyed an annual average economic growth rate of approximately 7.5 percent in the last decade, largely driven by foreign investments, it still ranks 180 out of 189 countries in the Human Development Index (2018) and in 2016 the hidden debt crisis<sup>1</sup> caused gross domestic product (GDP) growth to decrease, inflation to rise, and debt levels to surge unsustainably. Between 2016 and 2019, growth averaged 3 percent, with GDP per capita contracting by an average 5 percent. This situation worsened in 2020 due to the impact of the Coronavirus Disease 2019 (COVID-19) pandemic as real GDP contracted by 1.3 percent. The country faces significant regional imbalances, which has affected development outcomes particularly in the central and northern regions.

**3. Mozambique has experienced a series of multidimensional shocks in recent years, which have compounded one another, and have placed further pressure on already strained systems and capacities.** The financial shock related to the hidden debt crisis more than halved the average rate of growth. This shock was followed in 2019 by Cyclones Idai and Kenneth, which devastated parts of Northern and Central regions, leaving thousands without shelter and water or sanitation. Cyclone Idai, which ranks as the third-deadliest tropical cyclone on record in the Southern Hemisphere, killed more than 600 people and resulted in losses and damage amounting to US\$3 billion.

**4. The security situation in the North of Mozambique has significantly deteriorated in the past four years.** What began as attacks on police and administrative units in the port town of *Mocimboa da Praia* in Cabo Delgado in October 2017, has escalated rapidly and intensified in range, sophistication and intensity. It has challenged the Government's response capacities and threatens the economic potential of lucrative Liquefied Natural Gas (LNG) investments in the region, while destroying human and physical capital leading to a mounting humanitarian and displacement crisis. It is estimated that the conflict has led to over 3,800 fatalities as of end-December 2020, and more than 700,000 Internally Displaced Persons (IDPs). The recent violent attacks on Palma (March 24, 2021) have led to displacement of an estimated 8,166 IDPs<sup>2</sup> to the districts of Nangade, Pemba, Mueda, and Montpuez. Escalation of the conflict has fueled concerns regarding risks of spillovers into the neighboring Niassa and Nampula provinces, both of which face similar underlying structural challenges as Cabo Delgado. There have also been reports that the insurgents are benefitting from the thriving illicit economy, which especially young people lacking opportunities are being recruited into.

<sup>1</sup> In 2016, undisclosed government loans worth up to US\$2 billion were discovered, and this caused a halt to Mozambique's economic success story. For more details, Country Partnership Framework (CPF) for Mozambique (FY2017–2021): <http://documents.worldbank.org/curated/en/540001493517702187/pdf/MZ-CPF-Final-clean-March-23-04052017.pdf>

<sup>2</sup> The International Organization for Migration March 2021, Displacement Tracking Matrix



**5. Northern Mozambique is characterized by low welfare levels and faces deep-rooted fragility challenges, amid perceptions that development decisions have favored the South.** The Northern provinces continue lagging the Southern ones, with a significantly higher percentage of poor in Niassa (67 percent), Nampula (65 percent) and Cabo Delgado (50 percent) than in Maputo Province (12 percent) and Maputo City (4 percent), the two areas that have seen the largest decline in poverty rates in the past decade. Without strong mitigating measures, these divides could widen socioeconomic grievances, and sharpen the inequalities and sense of marginalization that underpin the escalating insurgency in the Northern province of Cabo Delgado. According to the Risk and Resilience Assessment (RRA) prepared by the World Bank (2020-2021), key challenges of fragility in Mozambique include: 1) a historical sense of neglect, compounded by socio-economic grievances and exacerbated by exclusion from and competition for access to land and resources; 2) youth disconnect and marginalization in a socioeconomic status of “waithood”, denied of opportunities for economic betterment, education, and political voice; and 3) rapid population growth, environmental degradation, and the impacts of climate change and natural hazards that placed additional stress on natural resources, with large parts of the population relying on land, forests, minerals, and fishing for a source of livelihood.

**6. Mozambique is also ranked Africa’s third most vulnerable country to climate change.** There are variations between regions, and large areas of the country are regularly exposed to tropical cyclones, droughts, and river/ coastal storm surge flooding. This vulnerability is heightened by the country’s 2,470 km of coastline and socio-economic fragility. 60 percent of the population lives in low-lying coastal areas, where intense storms form from the Indian ocean and sea level rise put infrastructure, coastal agriculture, key ecosystems and fisheries at risk. As 70 percent of the population depends on climate-sensitive agricultural production for their food and livelihoods, increased frequency and intensity of storms, droughts, and floods pose pressure on agricultural income and food security. Historical climate trends show average temperatures have increased 1.5–2°C (1961–2020), and future climate projections indicate more marked temperature increases in the interior, and coastal areas. The province of Cabo Delgado remains the country’s poorest province, heavily reliant on small-scale, subsistence agriculture and extremely vulnerable to climatic shocks. As agriculture becomes less productive, and less land area is available due to increased drought, more land needs to be cleared, increasing the already high rate of deforestation, and exacerbating the problem of land degradation and temperature rise. Coastal resources (including fisheries and tourism) are also affected both by natural disasters and increasing temperatures, damaging ecosystems that sustain ocean life and fisheries such as coral reefs, mangroves and seagrass.

**7. This project will address the identified climate risks and vulnerabilities by prioritizing investments that promote more resilient livelihoods and improved management of natural resources which these livelihoods depend on.** This will include prioritizing climate-smart solutions in the various community-driven activities, from agriculture to forestry, conservation areas management, biodiversity protection, and infrastructure development/upgrading. The project will enhance adaptive capacity of local communities, reducing both individual and collective climate vulnerability. More details on how addressing climate change will be prioritized are provided in the project and components description and in annex 7.

**8. Women and youth in Mozambique are at a particular disadvantage in accessing economic opportunities and political platforms** due to low levels of education, high maternal health risks, pressure to marry at a young age (half of Mozambican women marry before the age of 18), gender-based violence



(GBV) (a third of Mozambican women ages 15-49 years have experienced physical violence), and accepted cultural norms. Mozambique ranks 127 out of 162 countries on the United Nations Development Programme (UNDP) Gender Inequality Index (2019). Youth are increasingly marginalized, due to lack of access to quality education, thus excluded from political voice and opportunities to earn an income, for social mobility and self-improvement. Furthermore, a sizeable number of Mozambicans will fall back into poverty because of the COVID-19 pandemic. The pandemic could also heighten socioeconomic grievances and sharpen the inequalities and sense of marginalization that are contributing to the escalating insurgency in the northernmost province of Cabo Delgado.

## B. Sectoral and Institutional Context

**9. Mozambique is well endowed with natural capital, including:** 36 million ha of arable land, 34 million ha of natural forests (Miombo dry forests being the predominant ecosystem) and the second largest mangrove resources in Africa, covering around 357,000 ha. Mozambique has the fourth longest coastline in Africa, harboring some of the most spectacular coral reefs in the world and several highly productive estuaries, significant energy resources, water, and gas including recently discovered offshore natural gas. The country has outstanding biodiversity, counting more than 10,000 species, 10 percent of which are endemic or nearly endemic.

**10. Mozambique's Northern provinces, including Cabo Delgado, Nampula, and Niassa, are among the richest in terms of renewable natural resources.** These resources including soil, forests, fisheries, and biodiversity provide global public goods, such as, climate stabilization, and nationally significant ecosystem services. They also play a critical role in contributing to the resilience of local communities and their livelihoods, by providing goods and ecosystem services to the local population, such as freshwater, food, construction and medical materials, and fuel sources. As population and resource consumption continue to rise, coupled with other factors of environmental degradation, increasing competition for diminishing renewable resources further fuel the risk of conflict and fragility. The key challenges and opportunities for management of these natural resources are summarized below (See annex 3 for more details).

**11. Agriculture in Northern Mozambique is practiced by about 80 percent of the population.** Yet the agricultural sector in this region still struggles with issues such as (i) low productivity, (ii) low quality of production (also associated with limited incentives/skill development for farmers) and (iii) challenges for producers and Micro, Small and Medium Enterprises (MSMEs) to access stable markets. Women participate significantly in the Northern Mozambique agricultural sector, with about 30 percent of households being female led in both Niassa and Cabo Delgado. The agricultural sector is also extremely vulnerable to climatic shocks. As agriculture becomes less productive, and less land area is available due to increased flooding, more land needs to be cleared, increasing the already high rate of deforestation, and exacerbating the problem of land degradation. Adding to these challenges, displacements caused by the conflict have a strong rural dimension. Large number of IDP originate from rural areas, and now live in rural host communities, leading to increased pressure on food security and agricultural systems in these host communities. Investing in agriculture is critical to increase self-reliance of IDP, and to strengthen the resilience of host communities.



**12. Conservation Areas (CAs) occupy over 20 percent of Northern Mozambique's landscape<sup>3</sup>.** An estimated 500,000 people reside in and around these areas, which are also home to woodlands, granite inselbergs, coastal forests, white beaches, coral reefs, and abundant wildlife. Besides their potential for nature-based tourism as well as their key contribution to global biodiversity protection, these CAs play a critical role in contributing to the resilience of local communities, through the provision of food, shelter, medicine, and climate change mitigation such as cyclone or floods protection. CAs face several challenges to their long-term integrity and sustainability. Due to the COVID-19 pandemic nature-based tourism is suffering significant losses, leading to revenue shortfalls for Mozambique's CAs, which in turn imperil the proper functioning of CAs and wildlife protection. There is a need to strengthen management capacity and explore co-management arrangements, including with the private sector and communities. Such co-management arrangements have the potential of securing much needed financial and technical resources, while reducing conflicts over precious land and biodiversity assets between local communities, the state, private investors and other actors. Furthermore, improved livelihood options can help defer communities' involvement in unsustainable or illegal exploitation of resources.

**13. More than 75 percent of timber stocks and 85 percent of the precious wood species available in the country are concentrated in the Northern and Central provinces.** The sector holds great potential of contributing more significantly to the economy, incomes, and the job market in Mozambique's rural areas. Yet the Northern provinces have the highest deforestation rates, with Nampula alone accounting for more than 25 percent of the deforestation in the country (around 74,000 ha/year). Forests are degraded and lost in the region primarily because of small-scale agriculture, biomass energy, unsustainable forest management, land tenure insecurity, inadequate land use planning, and lack of enforcement of forest policy. Population displacements is increasing pressure on forest resources as thousands of families need new sources of income. Unsustainable forest exploitation, especially for firewood collection and construction needs, is increasing. If left unchecked, deforestation will intensify and conflict over scarce forest and tree resources will grow. Adding to this challenge, the collection of firewood often falls on women and girls, therefore increasing their exposure to GBV. This calls for comprehensive and improved forest management.

**14. Northern Mozambique's long coastline teems with rich marine life, supporting livelihoods for hundreds of remote coastal communities.** Despite a relatively low contribution of about 2 percent of the national GDP, fisheries provide a major source of food and is a vital part of the rural job market. Nampula, Niassa and Cabo Delgado include over 54,000 artisanal fishers, distributed across 571 fishing centers<sup>4</sup>. Monitoring, Control and Surveillance (MCS) of artisanal fisheries, as well as artisanal fishers licensing rate remains very low. If more sustainably managed, artisanal fisheries could contribute significantly to improving economic prospects and building the resilience of local communities living along the coast of northern Mozambique. While aquaculture is still in very early stages of development, its development is a priority for the Government of Mozambique (GoM) as reflected in the recently approved 2020-2030 National Aquaculture Development Strategy. Reports indicate the conflict in Cabo Delgado is substantially impacting fishing communities and livelihoods, including through displacement of people to areas where

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<sup>3</sup> The key CAs managed under the National Administration of Conservation Areas (ANAC) include the Niassa Special Reserve, the Quirimbas National Park and the Environmental Protection Area of Ilhas *Primeiras e Segundas* (APAIPS).

<sup>4</sup> These numbers account for artisanal fishers only, and do not account for other professionals in fisheries-related value chains. The 2012 Census identified about 22,000 people directly engaged in fish processing and trading, naval carpentry, naval mechanics and gear manufacturing (e.g. production of artisanal fishing nets) in Nampula, Cabo Delgado and Niassa.





fishing grounds are absent, IDP are not equipped to fish or additional fishing effort poses a high risk to stock sustainability.<sup>5</sup>

**15. The inclusion of women in natural resource management and their equal participation in economic and social life is essential for enhanced resilience and to facilitate Northern Mozambique's transition out of fragility.** The role of women in society remains marginal, and women have unequal access and control over productive and natural resources and lower access to education, skills development opportunities, and employment. Women also have limited participation in decision-making related to issues affecting their well-being and that of their families, communities, and surrounding environment and natural resources. They are the prime victims of GBV, which is widespread. The conflict in Cabo Delgado and the impacts of the COVID-19 pandemic have increased women's vulnerability, heightening the risk of GBV and early and forced marriages. There is also a risk that the number of women-headed households will increase due to violent conflict. According to the latest United Nations (UN) reports, 45 percent of IDPs due to the conflict are children and 32 percent are women<sup>6</sup>. Closing gender gaps in access to economic opportunities, natural resource management, and assets and investing in women's human capital are paramount to both strengthening women's role and autonomy and increasing the resilience of communities in the Northern provinces.

### C. Relevance to Higher Level Objectives

**16. A new Government took office in January 2020, after general elections.** The new administration adopted a Five-Year Government Plan 2020-2024 (*Programa Quinquenal do Governo*, PQG) with a strong emphasis on rural development through the promotion of productive activities in rural areas, and a focus on the central and northern part of the country, particularly in agriculture, forestry, fisheries, biodiversity, and tourism.

**17. An Eligibility Note, requesting support for Mozambique from the Prevention and Resilience Allocation (PRA) under IDA19 was discussed by the World Bank Board of Directors on April 28, 2021.** PRAs provide enhanced support for countries at risk of falling into high-intensity conflict or large-scale violence, based on government commitment, and agreed milestones. Under the PRA, the GoM commits to addressing the structural causes of fragility and conflict and is formulating a Development and Resilience Strategy, expected by August 2021, for the North of Mozambique to address the impacts and causes of the conflict and plan for longer-term recovery. The World Bank Group (WBG) is recalibrating its portfolio to support the Government's prevention efforts, including developing a spatially targeted approach to conflict prevention. The proposed project will directly contribute to this approach by building the resilience of populations in the "buffer zone" around the active conflict in the North and support the prevention of spillovers to the surrounding provinces of Niassa and Nampula.

**18. The approach will complement other WBG-supported projects that will also tackle the crisis response and longer-term social and economic development needs.** These projects support the GoM in

<sup>5</sup> In February 2021, Ministry of Sea, Inland Waters and Fisheries (MIMAIP) estimated losses or damages to artisanal fisheries from the conflict affecting directly over 13,000 fishers, as well as at least 500 fishing vessels and over 450 fishing gears. MIMAIP further estimated that over 11,000 artisanal fishers were driven by the conflict from the districts of Mocimboa da Praia, Palma and Macomia to reception/resettlement centers in the districts of Ancuabe, Montepuez, Chiure, Metuge and Mecufi. In terms of resource sustainability, experts have been demonstrating particular concern about the bay of Pemba, given significant inflow of fishers to the area.

<sup>6</sup> <https://news.un.org/en/story/2021/04/1088962>,

[https://www.iom.int/sites/default/files/situation\\_reports/file/iom\\_mozambique-cabo\\_delgado\\_sitrep\\_1-14april2021.pdf.pdf](https://www.iom.int/sites/default/files/situation_reports/file/iom_mozambique-cabo_delgado_sitrep_1-14april2021.pdf.pdf)



managing the immediate IDP crisis through rehabilitation of services and infrastructure and basic livelihood support, as provided by the Northern Mozambique Crisis Response Project (P176157), and long-term reconstruction and development, as provided by the Sustainable Rural Economy Project (SREP, P174002) and Mozambique Economic Linkages and Diversification Project (171664) that will focus on increasing commercial rural productivity, upstream linkages to large development projects and access to markets. The specific angle of this project is the stabilization of IDP and host communities by rebuilding (mostly natural resource based) livelihoods, increasing resilience and self-reliance while addressing environmental degradation and natural resource depletion through improved Natural Resource Management (NRM).

**19. To underpin Mozambique’s eligibility for the PRA, the World Bank has prepared a Risk and Resilience Assessment (RRA, December 2020),** which informed the proposed project design. Poor management and lack of equitable inclusion in accessing natural resources fuel grievances, undermine cohesion at the community level, and stoke competition over scarce resources and livelihood opportunities. Transforming natural resources in a way that creates jobs, sustains economic development and contributes to economic recovery and reconciliation, while not fueling old and new forms of grievance or major environmental degradation, must be a priority in Northern Mozambique with high dependence on renewable resources for livelihoods.

**20. The proposed project is closely aligned with the WBG Mozambique’s FY17–FY21 CPF (Report number: 104733-MZ) as revised in the recently concluded Performance and Learning Review (PLR) that includes adjustments to the CPF for COVID-19.<sup>7</sup>** Mozambique’s CPF for FY17–FY21 draws on the 2016 Systematic Country Diagnostic (SCD -Report No. 103507-MZ), which identified three focus areas in support of the twin goals, that is, (a) promoting diversified growth and enhanced productivity, (b) investing in human capital, and (c) enhancing sustainability and resilience. The PLR added an objective, Supporting Recovery and Rehabilitation, under this third focus area, reflecting stepped-up IDA financing to address the impact of recent cyclones and the pandemic. An SCD update is currently under preparation<sup>8</sup>, which is expected to confirm the continued relevance of these three focus areas for Mozambique in the coming years. In line with the WBG crisis response approach to COVID-19, the proposed project has the overarching goal of creating more resilient communities in Northern Mozambique and is part of an adjusted CPF program to help Mozambique manage and respond to the COVID-19 crisis (see annex 6 for detailed description of World Bank support to address COVID-19 ).

**21. The proposed project is also strongly aligned with the World Bank Next Generation Africa Climate Business Plan (NGACBP2020), and the planned Mozambique’s Nationally Determined Contribution (NDC, 2021).** The project is designed within the framework of the *‘NACBP Strategic Direction I, II and V: Food Security and a Resilient Rural Economy, Ecosystem Stability and Water Security, Climate Shocks and Risk Governance*, as it will concentrate efforts on improving agricultural productivity and incomes by strengthening the adapting capacity of key actors, including women and youth; by supporting the enhancement of landscapes and seascapes management to increase resilience of vulnerable communities; by improving capacity to respond to climate shocks, including strengthening local adaptation planning in key climate vulnerable areas. The proposed operation also aligns with Mozambique’s NDC, by: i) contributing to build the capacity to prepare and respond to climate risks; ii)

<sup>7</sup> Mozambique - Performance and Learning Review of the Country Partnership Strategy IDA/R2020-0117, April 3, 2020.

<sup>8</sup> Expected to be finalized in 2021.



increase the resilience of agriculture, livestock and fisheries, guaranteeing the adequate levels of food security and nutrition; iii) increasing the adapting capacity of vulnerable groups; iv) ensuring biodiversity protection; v) reducing soil degradation and promoting mechanisms for the planting of trees for local use; and vi) improving the knowledge and capacity to act on climate change.

## PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

**22.** The Project Development Objective (PDO) is to improve access to livelihood opportunities for vulnerable communities and management of natural resources in selected rural areas of Northern Mozambique.

**23.** **The project aims to address key drivers of fragility and conflict in order to improve the resilience of vulnerable communities in selected landscapes of Northern Mozambique.** Specifically, the project will address the following drivers: (i) exclusion of local communities and IDP (particularly women and youth) from access to sources of livelihoods depending on renewable natural resources; (ii) environmental degradation, climate variability and limited capacity of formal institutions to manage natural resources in a sustainable and inclusive manner; and (iii) exclusion of local communities and IDP from managing and deciding over use of natural resources. The project intends to enhance the communities' resilience by: (i) promoting inclusion of vulnerable and natural resource-dependent communities in decision making over livelihood rehabilitation, (ii) increasing their access to natural resources, basic infrastructure and services, and (iii) providing concrete livelihood opportunities. The project will also support improved natural resources management policies and practices, to protect the natural resource base on which the poor depend for their livelihoods.

**24.** **Given the high vulnerability of Northern Mozambique to climate and geophysical hazards, as highlighted in the Climate and Disaster Risk Screening Report carried out for the project by the World Bank,** the design takes an overall climate-sensitive approach to help mitigate risks and enhance adaptive capacity of project beneficiaries. This will translate into promoting climate-smart solutions across all activities and sectors of intervention, from infrastructure to agriculture, fishery, forestry, and community-driven activities. More details are provided within the description of each component in section II and in annex 7.

#### PDO Level Indicators

**25.** The project performance towards the PDO will be measured through key outcome and intermediate results indicators. Details of each indicator baseline and targets are provided in the Results Framework. The main expected project results will be measured by the following PDO level indicators:

**26.** To measure improved access to livelihood opportunities for vulnerable communities in selected rural areas of Northern Mozambique:

*a) Number of beneficiaries that accessed livelihood improvement activities supported by the project (Nr/ Annual)*



**27.** To measure improved management of natural resources in selected rural areas of Northern Mozambique the project will use the following indicators:

- a) *Area under sustainable agriculture as a result of the project; (Ha / Annual)*
- b) *Number of registered artisanal fishing gears annually licensed in targeted areas<sup>9</sup> (Nr/ Annual)*
- c) *Number of conservation areas with improved management as a result of the project<sup>10</sup> (Nr/Annual).*

## **B. Project Components**

**28.** The proposed project will have four components: (1) Improving access to livelihoods and community infrastructure; (2) Improving management of natural resources; (3) Multi-stakeholder Coordination and Project Management; and (4) Contingency Emergency Response.

<b>Component 1- Improving Access to Livelihoods and Community Infrastructure</b>	<b>98.8</b>
Subcomponent 1.1: Livelihoods Stabilization through Community Driven Development	52.0
Subcomponent 1.2: Sustainable Agriculture Interventions	28.8
Subcomponent 1.3: Sustainable Fisheries Interventions	18.0
<b>Component 2 – Improving Management of Natural Resources</b>	<b>41.5</b>
Subcomponent 2.1: Improved Management of Forests and Climate Risks	12.6
Subcomponent 2.2: Improved and more Inclusive Management of Conservation Areas	24.6
Subcomponent 2.3: Improved Management of Fisheries Resources	4.3
<b>Component 3- Multi-stakeholder Coordination and Project Management</b>	<b>9.7</b>
<b>Component 4- Contingency and Emergency Response</b>	<b>0</b>
<b>TOTAL</b>	<b>150</b>

**29.** A geographical prioritization exercise informs selection of specific areas with high poverty and vulnerability due to conflict and climate change, potential for impact, and viability of implementation. This exercise allows to match areas with different type of activities, that focus on agriculture and forestry, fisheries, or biodiversity conservation, depending on the most relevant natural asset identified in the selected area. Selected sets of priority activities will be carried out in 18 pre-identified districts<sup>11</sup>, instead of all activities rolled out in all districts. In these 18 districts, the project will support 300 communities. More details on the geographical prioritization exercise can be found in annex 3.

### **Component 1- Improving Access to Livelihoods and Community Infrastructure (US\$98.8 million equivalent)**

**30.** This component will address the fragility driver *exclusion of local communities and IDP (particularly women and youth) from access to livelihoods depending on renewable natural resources.*

<sup>9</sup> This indicator is a proxy to measure the Government's improved capacity to oversee, regulate, and annually inspect the recorded artisanal fishing gears in target areas.

<sup>10</sup> CA are considered as having improved their management (and count as 1) when they achieve a set target, measured through the Management Effectiveness Tracking Tool (METT). The METT is one of the two most widely used globally applicable systems developed to assess protected area management effectiveness.

<sup>11</sup> Niassa (5): Sanga, Lago, Majune, Marrupa, Mecula; Cabo Delgado (4): Montepuez, Namuno, Metuge, Montepuez; Nampula (9): Mossuril, Angoche, Larde, Mecuburi, Memba, Moma, Mogincual, Nacala, Nacala-a-Velha



To this end, it will adopt a Community Driven Development (CDD) approach, emphasizing community control over planning and investments decisions. This approach will blend an innovative participatory district and community grant scheme in Mozambique, with specific support to agriculture smallholders and fishers already under implementation through World Bank support with successful results in Mozambique.

**31. Climate-based information will be used to determine the scope of livelihood-related interventions and prioritize them accordingly.** With regards to community infrastructure investments that will be supported in the component, the climate and disaster risk screening will serve as a basis to identify the type of infrastructure that has the potential to guarantee improved resilience. The project will also provide technical skills for provincial and district authorities and communities to be involved in resilient construction and upgrading of infrastructure, as an opportunity to improve climate awareness, generate alternative livelihoods, ensure skills are in place to maintain infrastructure locally, and scale-up resilient practices beyond project closure. A community infrastructure manual will be prepared before effectiveness, to provide guidance on planning, design, construction, and maintenance of infrastructure to higher standards of resilience, in alignment with locally relevant planning and building standards.

**32. *Subcomponent 1.1: Livelihoods Stabilization through CDD (US\$52 million equivalent).*** This activity will provide grants to eligible districts and communities<sup>12</sup> to i) stabilise IDP and host communities' living conditions and generate sustainable livelihoods opportunities, ii) promote inclusive and participatory development, and iii) strengthen social integration. The grant support will be provided to district authorities to support larger infrastructure needs, and to communities. Through a participatory process, communities will define projects to be implemented in their communities, and progressively become more involved in community projects based on their capacity. Needs of IDPs, in particular women and youth, will be identified, and these groups will be ensured access and voice in the participatory planning processes<sup>13</sup>. Communities will receive support to improve their planning processes and gain skills to improve their livelihoods, including NRM, climate change, conservation, Gender Action Learning System (GALS<sup>14</sup>), and participatory planning and community management. This will ensure the resilience of CDD-supported activities.

**33. *Sub-component 1.1.1: District support (US\$18 million equivalent)*** will finance social and economic infrastructure that can generate positive spill-over for several communities in the same districts, including both host communities and IDPs, for example: secondary schools, maternity wards, feeder roads, markets, irrigation schemes. Priority will be given to i) climate smart investments (e.g. climate resilient infrastructure using local and sustainable material), ii) labour-intensive projects to create employment, especially among community youth and iii) gender-responsive investments that aim to bridge the gender gap in human endowments and empowerment. A total of 18 districts will receive an

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<sup>12</sup> Defined as a group of families or individuals living in a territorial constituency of locality level or lower which is aimed at safeguarding common interests. The identification of the communities will be done by the Project Implementation Unit (PIU) with the support of the local districts' authorities based on indicators, such as the number of IDP living in the community. The project will build on the ongoing work of the Mozland Project (P164551), where work on the community delimitations is starting in mid-2021 (it is planned that 160 communities will be delimited by Mozland in the MozNorte project area).

<sup>13</sup> District-level investments will need to be selected based on the Economic and Social District Development Plans (ESDD), which are developed through a bottom-up approach (localities, administrative posts, districts). Community-level investments will be selected based on the Community Agenda, elaborated through a participatory process.

<sup>14</sup> GALS is a facilitative household methodology aiming to empower households to identify and address intra-household gender power relations that limit socio-economic progression.



overall allocation of US\$700,000 each, (US\$140,000 annually, or higher amounts if larger projects have been selected) for the duration of the project to construct/rehabilitate socio-economic infrastructure.

**34. The intervention aims to increase communities' trust in district authorities by enabling them to deliver social and economic infrastructure and improve governance.** District authorities will receive capacity building on conducting participatory planning and financial management and will select the infrastructures based on participatory input into district development plans, facilitated by the project's CDD government team. Activities will be implemented by the relevant district entity, with the support by the CDD team and related provincial government entities. Based on lessons from the Western Kenya Community Driven Development and Flood Mitigation Project (P074106), risk management strategies such as tranching payments based on satisfactory financial performance and adherence to participatory processes will be implemented. Transparency will be improved through the establishment of a digital participatory monitoring platform for district construction and maintenance of infrastructure. Information on this platform will be made publicly available to minimise the risk of corruption, create citizen engagement feedback loops and improve governance.

**35. Subcomponent 1.1.2. Community Support (US\$34 million equivalent)** will give small grants to improve communities' basic socio-economic infrastructure needs, enhance livelihoods and strengthen social cohesion and will benefit both host communities and IDPs. A total of 300 communities will receive support from service providers (NGOs, CSO or private sector)<sup>15</sup> to conduct a participatory analysis, to develop a gender sensitive and inclusive community development plan (*agenda comunitaria*) detailing community priorities, and to implement the subprojects.

**36.** Each community is expected to receive about US\$90,000 in grants over the course of five years. A positive list of activities will be developed, including, community infrastructures, Water, Sanitation and Hygiene (WASH), employment promotion, livelihood activities, from which communities can select based on needs and priorities. To diminish risks of exclusion and elite capture, a participatory and gender sensitive monitoring system of community projects and service providers will be established with information becoming transparently available. Roles and responsibilities of stakeholders, and flow of funds will be detailed in the Project Implementation Manual (PIM), which is expected to be adopted 30 days after Effective Date.

**37. Subcomponent 1.2. Sustainable Agriculture interventions (US\$28.8 million equivalent).** This sub-component will focus on strengthening the resilience of local agricultural production while boosting the integration of farming hosting communities and farming IDPs in the communities hosting a large number of IDPs involved in agriculture in *Nampula*, *Niassa* and in the south of *Cabo Delgado*, through: (i) provision of Small Emerging Commercial Farmer (SECF) Grants to support the implementation of SECF business plans for investments into priority value chains, favoring implementation of climate-smart solutions and strengthening inclusion of IDPs in host communities; and (ii) provision of direct support via public extension agents in selected areas of the three northern regions, aimed at grouping smallholders in groups or cooperatives (*blocos produtivos*) with the objective of boosting their capacity of producing staple crops.

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<sup>15</sup> An institutional mapping has been conducted to identify partner organizations with wide reach into the geographical area of the project





**38. Support through SECF will follow the national agriculture strategy approach, adjusted to the fragility context in the Northern provinces.** The project will finance matching grants (SECF grants) that will span from 85 percent (for women, youth and IDPs SECF) to 80 percent (other SECF) to support the preparation and implementation of SECF business plans for investments into priority value chains<sup>16</sup> in the project area, including support to farmers provided by public extension agents. This activity will be delivered through the FNDS Matching Grants Unit, in close cooperation with the district level extension services (SDAE).

**39. In selected disadvantaged areas of the three northern regions, with a widespread presence of subsistence agriculture and particularly acute Food and Nutrition Security (FNS) issues,** the support to vulnerable smallholder producer groups (*blocos productivos*) will be provided through extension agents specifically trained on staple crops and FNS practices and by local partners with presence in the region. Through this model, support will consist in i) development of an overall business plan geared towards production and food crops; and ii) financing of the business plan. *Blocos productivos* with higher percentage of vulnerable members (women's associations, IDP groups, etc.) will be provided priority for financing.

**40. Acknowledging the particularly high climate vulnerability of smallholder farmers and the specific needs of IDP, technical support will favour implementation of climate-smart solutions** and will aim at strengthening inclusion of IDP in host communities. Capacity building and financial assistance will promote climate-smart solutions, such as the replacement of drought-sensitive crops, development of water harvesting solutions to improve resilience to drought-affected crops, or development of small infrastructure that can enhance resilience to external events, such as cyclones and floods.

**41. Subcomponent 1.3: Sustainable Fisheries Interventions (US\$18 million equivalent).** Fisheries interventions will prioritize communities along the coast of Cabo Delgado and Nampula, and Lake Niassa, and will include (i) the roll-out of the *Mais Peixe Sustentável* (MPS)<sup>17</sup> matching grant scheme to support eligible fishers, including internally displaced fishers and fishers in host communities, as well as Small and Medium Enterprises (SMEs) for the development of fisheries and aquaculture-related value chains, (ii) training and interventions to reduce post-harvest loss and improve value addition to fishing products, (iii) support to select infrastructure linked to the marketing of fishery products, considering climate resilience standards, and (iv) mangrove restoration and other coastal vegetation in select priority areas in the coast of Nampula and Cabo Delgado, aiming to stabilize coastlines, reduce soil erosion and enhance fish spawning and nursery areas, and create local jobs.

**42. All activities under this component will support climate change mitigation and/or adaptation<sup>18</sup>.** The matching grant scheme will include targeted approaches to identify and support female-owned

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<sup>16</sup> Including horticulture, sesame, sunflower, maize, beans, cashew nuts, cassava and poultry

<sup>17</sup> MPS is a Matching Grant program, designed as a financing mechanism, non-refundable, to artisanal fishermen and small and medium-sized companies and other actors in the value chains related to fisheries, to reduce poverty and pressure on fisheries and for improving the business climate, ensuring greater productivity and private sector investment.

<sup>18</sup> Improved storage facilities and electrification of market infrastructure will consider climate friendly technologies such as solar power. Supported infrastructure will be climate proofed. This may include product handling and conservation infrastructure including small markets, cold chambers, upgrading of fishing landing sites, beach stabilization works, construction of haul-out ramps for small boats, construction of breakwaters and rebuilding of existing fisheries facilities. Mangrove management and restoration contributes to climate change mitigation, through the sequestration of carbon, and adaptation, through climate resilience services, stabilizing shoreline erosion, reducing storm surges, and preventing inland soil salinization.



businesses, allowing to fill the gap in financing opportunities for women. A specific allocation will be dedicated to support fishing households displaced by the conflict in Cabo Delgado, while avoiding further increase in fishing capacity in the area.<sup>19</sup>

## **Component 2 – Improving Management of Natural Resources (US\$41.5 million equivalent)**

**43. Activities under this component will focus on addressing two key drivers of fragility, i.e. (i) environmental degradation compounded by climate variability and limited capacity of formal institutions to manage natural resources in a sustainable and inclusive manner; and (ii) exclusion of local communities and IDP from managing and deciding over use of natural resources. When renewable resources are degraded or over-exploited increased competition between users become a basis for tension and conflict. Climate change, not a direct source of conflict, exacerbates resource scarcity and existing vulnerabilities, particularly where state capacity to manage natural resources in a sustainable manner is limited.**

**44. To address these constraints, the component will finance, among others, support for a) improved and inclusive management of forests and climate risk, b) improved and inclusive management of CAs, and c) improved management of fisheries resources.**

**45. Subcomponent 2.1: Improved Management of Forests and Climate Risks (US\$12.6 million equivalent).** This subcomponent will finance forest management activities to improve the use of forest resources at the community level, strengthen approaches for improved forest management and control, and manage climate risks in the North.

**46. To address the increased need for construction materials and fuelwood around displacement areas,** specific activities include the financing of operational costs, equipment and technical assistance to support sustainable charcoal production through, i) the preparation of forest management plans for charcoal production, ii) planting of fast growing species to create woodlots in host communities for charcoal production and construction material, iii) assistance in the use of more efficient charcoal making kilns to charcoal producer organizations and/ or individual producers.

**47. Improved governance and management of forest resources** will be achieved through i) support to improve patrolling, inspection, infraction prevention and detection in selected forested areas, and coordination with other institutions involved in forest governance, ii) support to the Agency of Environmental Quality and Control (AQUA) provincial units in Niassa and Nampula, and iii) the establishment of a sustainable and collaborative forest reserve management model in Nampula province (*Mecuburi Forest Reserve*<sup>20</sup>).

**48. Lastly, the project will also support revision and implementation of Local Adaptation Plans (LAP) in selected districts that are particularly vulnerable to climate change.** An assessment of priority areas will be conducted at project start and be based on the National Institute for Disaster Risk Management (INGC) risk maps (for cyclones, flooding, droughts, etc.).

**49. Subcomponent 2.2: Improved and more Inclusive Management of Conservation Areas (US\$24.6 million equivalent).** This subcomponent will support activities in the Niassa National Special Reserve

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<sup>19</sup> Support to fishing households displaced by the conflict in Cabo Delgado will be initiated through the Northern Crisis Recovery Project (P176157).

<sup>20</sup> The Mecuburi Forest Reserve, gradually being eroded by small-holder agriculture, firewood collection, and forest degradation is the largest forest reserve in Mozambique, and second largest in Africa.





(NSR), including Chipanje Chetu community area and Hunting Block L4, APAIPS, and Quirimbas National Park (QNB)<sup>21</sup>. These activities will support i) effectiveness of CA management, and ii) inclusive and participatory management of CAs.

**50. The support to effective CA management by the National Administration of Conservation Areas (ANAC) in NSR, APAIPS and QNP**, will include: (i) construction of improved and climate-resilient infrastructure; and (ii) acquisition of vehicles and communication equipment; (iii) support the revision and implementation of CA management and business Plans, including the recategorization of the *Quirimbas* national park; (iv) strengthening CA's governance and human resources development, including the establishment and functioning of a gender friendly CA Management Councils; (v) promotion of training and small works that improve human-wildlife coexistence; (vi) resources protection, including patrol costs, training and equipment, including hardware and software; (vii) biodiversity monitoring and research; and (viii) implementation of CA's actions plans related to inclusive and gender-responsive community and tourism development.

**51. To support increased community engagement in CA management the project will support** i) formalizing and strengthening of concession and co-management arrangements in key areas, ii) promotion of gender-responsive conservation management activities for communities linked to existing livelihoods and nature-based tourism, and which also support communities to adapt to and mitigate climate change in agriculture and land management and reduce human-wildlife conflict. The activities will be implemented through non-traditional partners who have presence on the ground, as well as private operators, and will promote the conclusion of Collaborative Management Partnerships (CMPs) for conservation. Conclusion of CMPs are a key GoM commitment under the PRA to leverage technical and financial resources for conservation.

**52. Subcomponent 2.3: Improved Management of Fisheries Resources (US\$4.3 million equivalent).** Improving fisheries management is critical to ensure the sustainability of fish stocks and host community and IDP fishing livelihoods, while enhancing Monitoring, Control and Surveillance (MCS) can also contribute to addressing fragility drivers given the linkages between Illegal, Unreported and Unregulated (IUU) natural resource extraction and conflict. Interventions focusing on improving fisheries management will be delivered in coastal areas and Lake Niassa, including i) improving artisanal fisheries licensing and registration by rolling out a new electronic licensing and registration system, ii) strengthening fisheries' MCS, including capacity building of inspectors, equipment acquisition, and support to local surveillance operations<sup>22</sup>; and iii) promoting local fisheries co-management through capacity building (for institutions and of community fishing councils [*Conselhos Comunitários de Pesca*, CCP], support to local fisheries management measures (e.g. temporary closures and no-take zones), including the development of fisheries management plans, where viable and restoration of resources in overfished areas/no-take zones.

### **Component 3- Multi-stakeholder Coordination and Project Management (US\$9.7 million equivalent)**

**53. The project will provide operational costs of multi-stakeholder platforms at the level of each province**, to the Agency for Integrated Development of the North (ADIN) for the development of a multi-stakeholder platform per each province to facilitate multi-stakeholder coordination and dialogue, private

<sup>21</sup> Due to the deteriorating security situation in Quirimbas National Park, the project will initially only support finalizing the re-categorization process of the park. If the situation improves during project implementation, other activities may be supported.

<sup>22</sup> This will be accompanied by robust technical assistance provided to the National Directorate of Operations (DNOP) and the National Fisheries Administration (ADNAP) under the parallel Sustainable Rural Economy Program (P174002)



sector involvement, and landscape/local-level monitoring. These coordinating platforms will help improve the ability of local institutions to plan, protect, and restore ecosystems, and develop strategies for increasing preparedness and resilience to climate change.

**54. Furthermore, the objective of this component is to coordinate and monitor project activities and manage financial and human resources in an efficient, results-oriented manner, in accordance with the project's objectives and fiduciary procedures.** This component will finance operational costs related to project management. This includes support for project coordination and management, fiduciary and safeguards management, M&E, and communication. The component will strengthen the MRV Unit at the Ministry of Agriculture and Rural Development (MADER), enhancing its capacity to monitor project activities while helping effectively to understand Greenhouse Gas (GHG) sources and trends, design mitigation strategies, and take policy actions in the face of climate change.

**55. The project will also develop a robust communication and outreach strategy** at all levels of intervention to inform, prepare, and involve stakeholders actively in all stages of the project. This component will support activities such as development of content and appropriate dissemination methods.

#### **Component 4- Contingency and Emergency Response (US\$0)**

**56.** The Contingency and Emergency Response Component (CERC) component is included to provide the means to support the recipient in case of a potential disaster-recovery need. The conditions for activating this component will follow procedures as agreed between the Recipient and the World Bank, laid out in the Financing Agreement, in response to an eligible crisis or emergency.

### **C. Project Beneficiaries**

**57. The project will cover around 300 communities (about 619,000 beneficiaries<sup>23</sup>) with potential for economic activities.** The project will have positive social and environmental benefits at local, national, and global levels. At the local level, the project will directly benefit local communities living in the target landscapes, often among the poorest of the population, through the promotion of enhanced livelihoods and healthier ecosystems. A critical indirect benefit to communities will be the value derived from increased quality of the natural resource base.

**58. The project will identify and prioritize investments with a specific focus on host communities and IDP, including women and youth, that are disproportionately affected by increased insecurity and climate shocks in the Northern Region.** Given the particularly high vulnerability of these groups, the project will target them by engaging them in management of natural resources and moving to the creation of income-generating activities. Approximately 70 percent of target beneficiaries are women (430,000), and around 40 percent are youth (that is, 14-35 years) (250,000). As for the share of IDP, the project has a 30 percent target, and a key criterion for community selection will be the total number of IDP, however the effective number will be identified close to the beginning of project implementation, given the mobility of this target group.

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<sup>23</sup> Total project beneficiaries will include: 1) direct beneficiaries of Component 1 (370,000 beneficiaries or 60 percent of total project beneficiaries), who will benefit from improved access to livelihood improvements; and 2) beneficiaries of Component 2 and 3 (249,000 or 40 percent of total project beneficiaries), i.e. institutions and communities that will benefit from improved management of natural resources and improved coordination [Component 2, Component 3].



**59. The project will also have a significant number of institutional beneficiaries,** including ProAzul, BIOFUND, other line ministries (i.e. Ministry of Land and Environment [MTA], MADER, MIMAIP), CA officials, and Community Based Organizations (CBOs), whose capacity will be strengthened through capacity-building activities. The GoM will also benefit significantly from a stronger institutional framework and improved regulations and management of natural resources. Finally, protecting Northern Mozambique's landscapes will generate globally relevant environmental positive spillovers, both in terms of protecting forested areas from deforestation and forest degradation, protecting terrestrial and marine biodiversity, and mitigating GHG emissions.

**60. Gender responsiveness.** The proposed project recognizes that addressing gender inequality and empowering women is pivotal to overcome poverty, generate wealth and sustainably manage natural resources effectively. Evidence also shows that gender equality is a crucial factor in the prevention of violent conflict and that youth inclusion is equally imperative for peaceful societies. The gender gaps that this project aims to address have been identified using the overall framework of WBG's Gender Strategy 2016-2023; and the WBG's Strategy for Fragility, Conflict, and Violence (FCV) 2021, which has a special focus on closing gender gaps. For gender tagging, a description of the gender gaps, gender-sensitive interventions and proposed indicators to be considered in the project to monitor and assess progress on the aforementioned activities is detailed in annex 4.

**61. Effective citizen engagement is key to the project and citizens, particularly youth, will be engaged as key agents of change to contribute to sustainable and peaceful development.** A comprehensive set of activities focusing on enhancing youth inclusion will help respond to different needs of young men and women and promote social engagement, community development, skills enhancement, and increase the drive of youth to innovate. Interventions will empower women to have a stronger say in economic, social, and power-sharing arrangements, while also addressing young men's marginalization. Monitoring systems promoted will, to the extent possible, include gender and age disaggregation. The strengthening of participation in district development plans and multi-stakeholder platforms will play an important role in citizen engagement. The project's CDD focus will include deep citizen engagement through the participatory planning and monitoring process and the empowerment of communities to decide over the use of funds. Moreover, in line with corporate requirements on citizen engagement, the Results Framework includes an indicator capturing beneficiary feedback (IRI 3.1). A robust GRM is in place to ensure feedback loops are closed through project-level responses. Further, mechanisms for effective citizen engagement will be explored during project implementation.

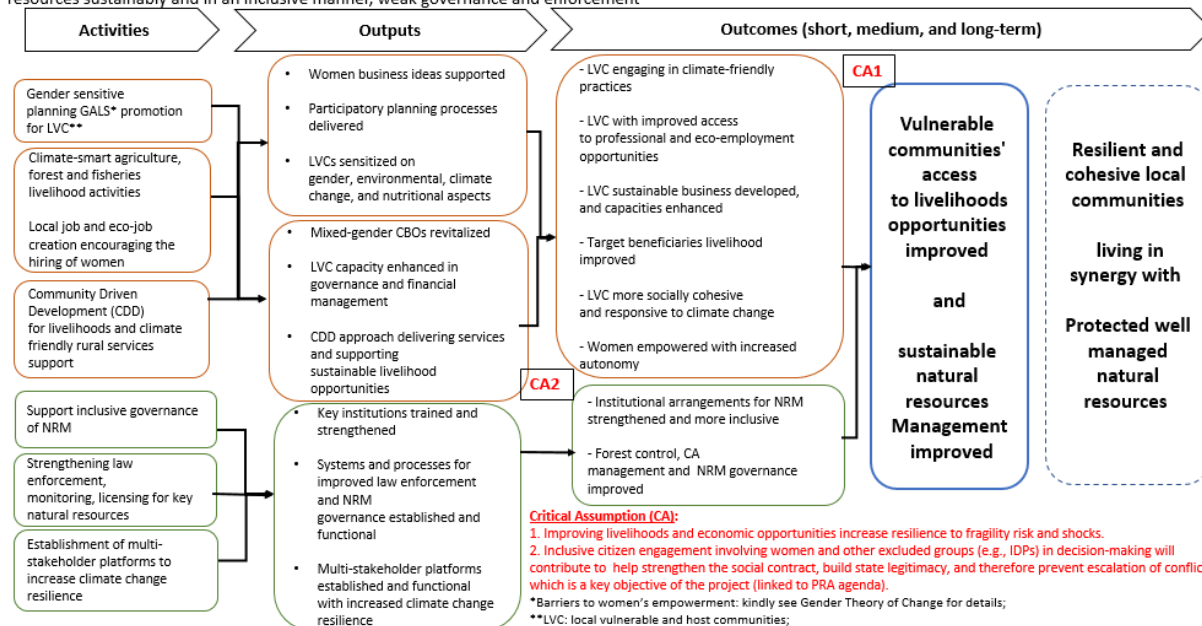
#### D. Results Chain

**62. Figure 1 below provides a visual description of the Theory of Change (TOC) behind the operation,** explaining the causal link between activities, outputs, short-term outcomes, medium-term outcomes (PDO), and longer-term outcomes ('aimed scenario' expected to occur beyond project closure). The TOC clarifies the main challenges to be tackled, and then explains through which approach the project will address them, to achieve the desired objectives. The critical assumption that guides this theory of change is that improving livelihoods and economic opportunities lead to increased resilience against conflict-related fragility risks and conflict or climate induced shocks. Improved livelihoods can also guarantee food security in a fragile scenario such as the one in Cabo Delgado. As such, the project will focus predominantly on measures that will enhance communities and households' sustainable livelihoods, income, access to finance, and overall wellbeing.



Figure 1. Theory of Change

**Problem statement:** Fragile social cohesion, climate change impact aggravates competition over natural resources, and limited opportunities for jobs, income and livelihoods, limited inclusion and ownership of local communities in managing NRM to mitigate climate change impact, limited institutional capacity to manage resources sustainably and in an inclusive manner, weak governance and enforcement



## E. Rationale for Bank Involvement and Role of Partners

**63. For nearly 30 years, the World Bank has been a significant player in environmental sustainability and remains one of the largest financers of the sector.** The WBG provides added value through (a) client focus, scale, and long-term engagement; (b) financial leverage and convening power; (c) economy-wide engagement; (d) public and private sector engagement; experience; and (e) global knowledge.

**64. The World Bank's value added is based on a wealth of experience and expertise developed through Integrated Landscape Management (ILM) investments.** During the first Nyusi administration (2015-2019), concepts such as sustainable agriculture, ILM, green economy and blue economy, among others, have gained significant traction, finding their way into policy and legislation that oriented public investments. These were supported by several World Bank-financed Investment Project Financing (IPF) operations<sup>24</sup>. These operations, which are under implementation helped improve rural productive capacity through support to 250 SECFs, inclusion of 40,250 smallholders into agricultural value chains and 15,000 beneficiaries into conservation compatible value chains in and around CAs, restoration of over 2,000 ha of key ecosystems within production landscapes, support to the improvement of livelihoods for over 39,000 people within fishing communities, and support to conclusion of ten nature-based tourism concessions in conservation areas. These investments improving rural productivity are complemented by the improved management of natural resources, including a reduction in deforestation by 63 percent in 2018 in the Zambezia province compared to the period of 2006-2016, an improvement in the protection

<sup>24</sup> Agriculture and Natural Resources Landscape Management Project (SUSTENTA) (P168940 and P149620), Mozambique Forest Investment Project (MozFIP) (P160033), Mozambique Land Administration Project (MozLand) (P164551), Mozambique Conservation Areas for Biodiversity and Development 1 and 2 (MozBio 1 and 2) (P131965 and P166802), Mozambique Dedicated Grant Mechanism (MozDGM) (P161241), MZ Zambezia Emissions Reductions Payment (P164524).



of biodiversity through more effective management of conservation areas, and a modernization of fisheries licensing through a more transparent electronic system. The series of IPFs have created a basis of practices and experiences that now require scale up to generate transformation impact.

**65. The World Bank has provided extensive support to Mozambique during recovery from recent emergencies.** Only days after the landfall of Cyclone Idai, in March 2019, the World Bank Board of Executive Directors approved the first-ever IDA Disaster Risk Management (DRM) and Resilience Program (P166437) for Mozambique. One aspect of the Program was the development and capitalization of a national DRM fund, which has since become a key pillar in the Government's humanitarian response to the IDP crisis in the North. Moreover, the US\$9.7 million CERC activated in 2020 under the ongoing Mozambique Land Administration Project (P164551) is providing additional support for the IDP crisis. The proposed operation builds on long standing World Bank experience of working with communities in fragile contexts, including the Afghanistan Solidarity Project Series (P159307, P102288, P117103), and the Myanmar National Community Driven Development Project (P166734).

**66. UN agencies and international and local NGOs, CBOs and service providers are currently working in the North.** As part of preparation to this project, an institutional mapping has been conducted that will guide collaboration with partners, especially under subcomponent 1.1, but also related to other project interventions.

## **F. Lessons Learned and Reflected in the Project Design**

**67.** The project design draws lessons from previous agriculture, forest, biodiversity, and fisheries projects in Mozambique. The key lessons are summarized in the following paragraphs and are reflected in the project design.

**68. Project activities related to agriculture build on lessons from SUSTENTA (P149620 and P168940).** The rural population in Mozambique mostly operate in agriculture at the subsistence level and, remain disconnected from input and output markets. There is limited access to key information, technology, and basic services required to harness market opportunities. Against this backdrop, the development of SECFs proved to increase availability and affordability of critical goods and services, and consequently increase productivity and revenues.

**69. Activities focusing on fisheries draw on lessons learned through the First South West Indian Ocean Fisheries Governance and Shared Growth Project (P132123/P132029) (SWIOFish1).** The Project will be scaling-up several activities first piloted under SWIOFish1-Mozambique, including the MPS matching grants scheme, the electronic fishers' registration and licensing system and capacity building based on training programs developed for strengthening CCP.

**70. Activities related to the grants to district and communities draw on lessons from the Western Kenya Community Driven Development and Flood Mitigation Project (P074106),** which have shown that community livelihood micro-projects were successful, while the district level investments faced challenges due to participatory processes not being followed, and financial malpractice being uncovered by community social accountability and integrity mechanisms. CDD projects in FCV contexts, such as Myanmar and Afghanistan, point to the importance of strong accountability mechanisms, and the involvement of relevant line ministries in planning and maintenance of infrastructure, which has been



integrated in the project design. The US\$32.5 million European Union project (PRODEL<sup>25</sup>) promoted economic development in rural areas of Mozambique which constructed economic infrastructures based on a participatory method in over 50 districts. PRODEL was successful by promoting ownership, providing continuous training on financial management and closely monitoring implementation. Based on these lessons, and adjusting to the fragility context, continuous training for districts, additional risk mitigation and participatory monitoring mechanisms have been included under component 1.1.

**71. Activities related to CAs build on lessons learned through the implementation of MozBio2 (P166802) and its predecessors MozBio1 (P131965) and the Transfrontier Conservation Areas and Tourism Development Project (P071465),** including: (i) activities need to carefully balance short-term economic needs with long-term improvements in communities' capacity to engage in natural resource management, (ii) the collaborative management of CA is key to provide the financial resources required for an adequate and sustainable use of natural resources use; (iii) investments in health and education around CAs, are key for to the well-being of communities, and reduce pressure by communities on CAs in the long-term; and (iv) adequate infrastructure and intra-agency collaboration, are key for reduction in illegal wildlife trade.

## IMPLEMENTATION ARRANGEMENTS

### A. Institutional and Implementation Arrangements

**72. The project will be implemented by the FNDS, the Blue Economy Development Fund (ProAzul) and BIOFUND, under oversight of MADER, MTA and MIMAIP, and in coordination with the ADIN.** MADER will provide general oversight, while MIMAIP and MTA will provide technical oversight over their respective areas of responsibility. More specifically, FNDS will be responsible for project coordination among all three implementing agencies. It will also be responsible for implementing all project activities, including the support to SECF through its matching grant unit, except for fisheries interventions, which will be implemented by ProAzul (under the mandate of MIMAIP), and some activities inside the Conservation Areas, which will be implemented by BIOFUND (under mandate of MTA). FNDS, in collaboration with ProAzul and BIOFUND, will lead on technical supervision and coordination, project planning, quality oversight, communication, safeguards management, reporting, procurement, financial management, and activities' progress monitoring and reporting. ADIN will support coordination with other initiatives targeting the three provinces. The roles and responsibilities will be established in the PIM that will be prepared jointly by FNDS, ProAzul and BIOFUND.

**73. A dedicated Project Implementation Unit (PIU) will be established within 30 days after project effectiveness in the city of Pemba, Cabo Delgado, at the FNDS provincial office.** The PIU shall be responsible for day-to-day management of the Project, including: (i) managing the implementation of Project activities; (ii) managing the procurement, financial management, disbursements, and safeguards aspects; (iii) coordinating the preparation, adjustments, and use of the Project management tools, including any updates to the PIM, annual work plan, Procurement Plan, and disbursement projections; (iv) coordinating with BIOFUND and ProAzul on the technical and fiduciary aspects of all Parts

<sup>25</sup> The project was implemented by district authorities with DNDEL support who developed manuals and protocols to facilitate the implementation and ensure accountability, and lessons from this project will be included in the development of the manual.





of the Project; (v) monitoring the progress of the PDO and intermediate indicators of the Results Framework; and (vi) preparing Project reports. The PIU shall be led by a Project coordinator, and shall include a procurement specialist, financial management specialist, a safeguards team (including, *inter alia*, a gender specialist, gender-based violence specialist, and a security risk monitoring and mitigation Coordinator), communication specialist, Monitoring and Evaluation (M&E) specialist and one accountant. The PIU will prepare an Annual Work Plan and Budget containing all activities to be carried out in the following fiscal year that will be shared with the PSC. This Annual Work Plan and Budget will be sent to the World Bank by November 1 of each year.

**74. A CDD Management Unit (CDDMU) will be set up with specialized staff to manage the CDD district and community grants component under FNDS.** The CDDMU will be based in the PIU in Pemba with assistants in the PIUs of Nampula and Niassa. The CDDMU will coordinate CDD subproject implementation through the CDD district and CDD community windows in close collaboration with the provincial directorate for civil works, District Services for Planning and Infrastructures (*Serviço Distrital de Planeamento e Infraestrutura*, SDPIs) and District Services for Economic Activities (*Serviço Distrital de Actividades Económicas*, SDAEs), and service providers. A comprehensive implementation manual will be developed for the CDDMU that includes clear rules, eligibility criteria, accountability mechanisms, and role of agencies and stakeholders involved. The implementation manual will be prepared by FNDS. FNDS will transfer CDD funds to districts and service providers that will open specific bank accounts for the project.

**75. The project will work with UN agencies (World Food Program (WFP), United Nations Development Program (UNDP), among other) and partners on the ground.** Experienced international and local NGOs (Aga Khan, Plan International, Wildlife Conservation Society (WCS), *Centro de Promoção a Cidadania* (CEPCI), etc.), local CBOs (*Associação de Proteção a Mulher e Rapariga* (PROMURA) Plataforma Makabo, Estamos, etc.) and Service Providers (SP) with on the ground presence (such a Technoserve, Sofreco, etc.) will be hired as needed, based on their areas of expertise. Such NGOs, CBOs and, SP will provide support to the implementation of activities under Component 1. and Component 2. All NGOs, CBOs and, SP hired under the project will establish their duty stations in the project area. A detailed institutional mapping has been carried out to facilitate partner identification.

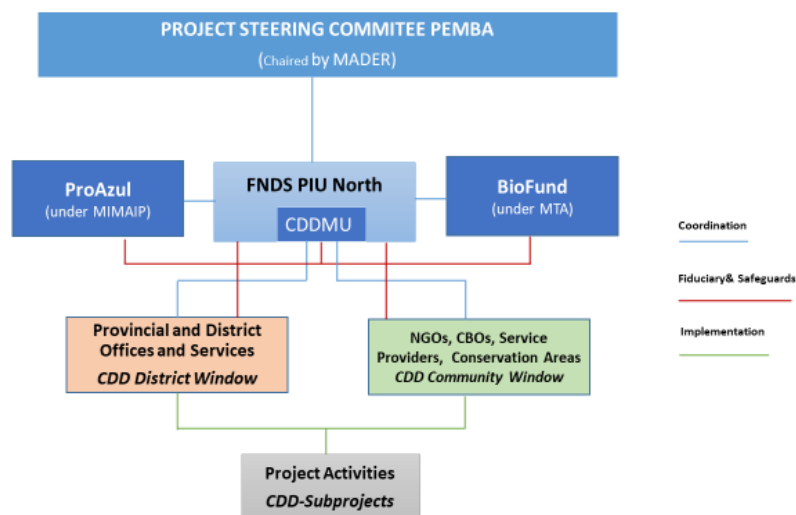
**76. The Provincial Services of Economic Activity (*Serviços Provinciais de Actividades Económicas*, SPAE) and Provincial Services of Environment (*Serviços Provinciais do Ambiente*, SPA) will be responsible for providing implementation support and monitoring of project activities under Component 1. SPAE will provide technical guidance to the provincial PIU offices.**

**77. A Project Steering Committee (PSC) will meet once a year in Cabo Delgado, and be responsible for i) providing overall policy guidance and decision making on all issues related to the project, ii) facilitate coordination among relevant sectors, agencies, and partners, iii) reviewing and approving annual work plan and budget submitted by the PIU coordinator, iv) ensure project alignment with other Government Programs and provide strategic direction.** The PSC will ensure there is adequate coordination between the main PIU and the line Ministries. The PSC will be chaired by MADER and composed of representatives of ADIN, FNDS, BIOFUND, ProAzul, national directorates, the private sector, and civil society organizations. National directorate representatives will be determined by the respective ministries, including MADER, MTA, MIMAIP, Ministry of Public Works, Housing, and Water Resources (MOPH). Independent observers from the private sector and civil society will also be members of the PSC.



**78. At the provincial level, two satellite PIU offices will be established in Niassa and Nampula.** These PIUs offices will report to the project coordinator based in the Pemba office. They will coordinate the work with the provincial directorates and services and the implementation of activities at the district level with the SDAE, SDPI as well as SPAE and SPA at the provincial level. At this level, activities will be implemented by PIU technicians, by extension workers who will be trained by the project and NGOs, CBOs, and SP.

**Figure 2. Institutional Arrangements**



**79. A PIM** will be prepared covering general purpose, project history, objectives, components, implementation timeline, institutional arrangements, landscape overview, beneficiaries and project locations description, budget, accounting policies, accounting and financial reporting system, administrative procedures (operating, administrative and financial, procurement, M&E, management of fixed assets, safeguards procedures and tools). The CDDMU will produce a detailed implementation manual that will be also part of the PIM. Finally, FNDS and ProAzul will prepare an implementation manual SECF Grants and Mais Peixe Sustentável Matching Grants, which will also be annexed to the PIM.

## **B. Results Monitoring and Evaluation Arrangements**

**80. The M&E function** focuses on data collection and reporting on key performance input, output, and outcome indicators, including targeted data collection, surveys, participatory assessments, and midterm and end-of-project evaluations. The Results Framework will be fed into the M&E system and will be managed by FNDS and count on the support of other institutions.

**81. Roles and responsibilities in M&E.** The FNDS M&E team will have the support of other institutions including FNDS, ANAC, ProAzul, BIOFUND and CAs staff to monitor and evaluate project indicators' results during its implementation. The FNDS M&E team will count on at least one M&E specialist, fully dedicated to the project who will coordinate the development of an M&E Manual with all detailed data collection process, responsibilities, schedule of activities, and the budget needed. No later than once month after





the end of each calendar quarter, FNDS will produce a quarterly progress report that will be shared with the Bank.

**82. M&E capacity.** M&E operationalization will be carried out by the FNDS M&E Unit, security situation permitting. Quality will be evaluated by the FNDS M&E team and results will be presented and discussed in World Bank missions. Data collection process will vary from simple review of official records and registries obtained after field work to satellite data and surveys (see results framework for details). The Survey of Wellbeing via Instant and Frequent Tracking (SWIFT) methodology will be implemented to collect poverty correlates data, such as household size, ownership of assets or education levels, and then converts them to poverty statistics using estimation models to measure livelihood improvement. All foreseen SWIFT survey rounds are opportunities to adjust the basic SWIFT questionnaire, directly collect data from local population, and compare results with project target beneficiaries.

**83. The project will adopt a Third-Party Monitoring (TPM) approach** where third parties are used to strengthen M&E systems to obtain data on the achievement of project progress.

**84. Communication and information use.** All data will be used to publish reports on project performance and achievements. It is also expected that the information generated will contribute for management decision on projects activities and priorities definitions. Communications will also be used as a key tool for the promotion of community-based activities diversifying methods to reach more members of the population including reporting on success stories and lessons learned. All data will be used to publish reports on project performance and achievements. It is also expected that the information generated will contribute to management decisions on activities and priorities definitions. Communications will also be used as a key tool for promoting community-based activities, female empowerment, and youth engagement, diversifying methods to reach more members of the population including reporting on success stories and lessons learned. Furthermore, it is expected to have all data, indicators, and results published in online dashboards to allow civil society monitoring and accountability. To enhance transparency, project dashboards will also enable raw data downloads.

## C. Sustainability

**85. The project is designed with the overarching objective of ensuring the sustainability of Northern Mozambique's rich natural resources,** especially given that the three northernmost provinces are among the richest in the country, in terms of renewable natural resources. The greatest proportion of the population live in remote areas, poorly connected to the rest of the country, insufficiently serviced, with limited alternatives for moving out of poverty, and highly vulnerable to external shocks such as the conflict in Cabo Delgado. The project aims to address these issues through four main pillars of sustainability: institutional, environmental, social, and economic.

**86. Institutional sustainability** will be achieved by supporting MADER, MIMAIP, MTA, ADIN, ANAC, FNDS, ProAzul, BIOFUND and other relevant agencies in strengthening their roles and complementarities. Institutional efficiency will be key for a sustainable governance of the NRM sector. The project will establish a culture results-based management to improve overall management capacity. While supporting the generation of local expertise, the project will help raise awareness of the importance of natural resources' health and the many related positive spillovers, to spur a behavior change that will persist beyond the project lifespan. Moreover, technical assistance recruited by the Project will be deployed, to



a large extent, directly at the level of the three target provinces, ensuring intense engagement and capacity building of subnational authorities.

**87. Environmental sustainability** will be attained by ensuring adequate capacity to manage sustainably natural resources and wildlife, as well as by helping reduce anthropogenic pressures on such resources and wildlife. It will also be achieved by ensuring no net loss of natural assets and biodiversity from the economic development that will be supported through project activities, including the CDD approach, which will represent a major step forward for environmental sustainability of the country.

**88. Social sustainability** will be a key element of the project, based on the empowerment of communities through the CDD approach, and supporting the generation of alternative livelihood schemes for rural communities living around CA landscapes, in forested or agricultural areas, and along the coast. The vital common element of such schemes will be their compatibility with environmental and biodiversity conservation needs, to generate a virtuous cycle that may self-sustain beyond project closure.

**89. Economic sustainability** is paramount to project design and will be sought through a public and a private dimension. On the public side, the project will ensure that public investments supported are embedded into plans of the respective authorities, be it at provincial, district, locality or conservation area level. On the private side, the project will support income-generating activities through the CDD approach (Component 1.1), matching grants, and other type of investments (support to agricultural activities), on the basis of their economic feasibility and longer-term sustainability prospects.

## PROJECT APPRAISAL SUMMARY

### A. Technical, Economic and Financial Analysis

**90. The development impact of the project will be to enable resilient livelihoods with a focus on communities and sustainable management of natural resources.** The planned project is targeting the drivers of fragility in the North of Mozambique and ensuring sustainable NRM. There is a need to invest in resource management capacity of rural communities with particular focus on youth and gender-related activities, as well as supporting initiatives to improve small rural climate-resilient infrastructure essential for rural livelihoods. A CDD approach is planned to support livelihoods based on agriculture, biodiversity, fisheries, and forestry. The benefits to rural livelihoods will be to enable beneficiaries to make decisions on investments that generate local employment and capitalize on both increased productivity and quality of their production. By investing in control and governance of fisheries, forests and CAs, the Project will reduce resource degradation that threatens the natural assets on which rural communities' livelihoods depend. The improved resource management is expected to provide a net decline in GHG emissions. Importantly, the project will seek to mitigate some of key drivers of fragility that can impede or derail efforts towards poverty reduction through a focus on greater inclusion and heightened conflict-sensitivity, and by integrating resilience-building measures into activities.

**91. The economic analysis was conducted based on a cost-benefit model that reflects the expected incremental impact of the planned project.** The model will quantify impact on livelihoods in agriculture, livestock, agroforestry, aquaculture, fisheries, tourism, CAs, and the forest activities. This also includes investments through the CDD approach. The model is being built by combining the approaches used in other projects, adopting their assumptions regarding beneficiaries' cost and benefit flows, and then



adjusting these for relevance in the current project with the support of team experts. The analyses used to build the Economic and Financial Analysis (EFA) model are: SUSTENTA (P149620) MozFIP (P160033), MozBio 2 (P166802), SwioFish 1 (P132123/P132029). Impact on artisanal fisheries is modelled on a Mozambique value chain study from the Sofala Bank (2019). Impact on GHG emissions will also be included based on analyses using the Food and Agriculture Organizations (FAO) Ex—Ante Carbon Balance Tool (EX-ACT).

**92. The cost-benefit approach enables an estimation of the incremental impact of the planned project compared to a without-project situation (counterfactual) through indicators such as net present values, rates of returns, and benefit cost ratios.** The model is designed to incorporate the uncertainty surrounding the above assumptions. Sensitivity analyses are being conducted to assess different risks including economic hardships, natural disasters, COVID-19, etc. It is expected that several potential net benefits from the investment cannot be quantified and will instead be discussed qualitatively. This includes: a wider range of rural livelihoods and infrastructure than the representative examples used in the model, improved nutrition (other than through higher farm/fishery productivity), value of provision of ecosystem services (waterflow, water quality, biodiversity) to support alternative rural livelihoods in CAs and forest reserves direct value of capacity building and institutional development, and downstream effects beyond the geographical area targeted by the project.

**93. The expected economic Net Present Value (NPV) at a 6 percent discount rate over 30 years is US\$870.1 million with a standard deviation of US\$7.4 million. The Economic Internal Rate of Return (EIRR) is 32 percent, payback period is 6.1 years.**

## B. Fiduciary

### Financial Management

**94.** FNDS will have fiduciary responsibility for the implementation of the proposed operation, along with ProAzul and BIOFUND. The Financial Management (FM) assessment conducted in April 2021 concluded that FNDS, ProAzul and BIOFUND have been working to ensure compliance with FM requirements of World Bank-financed operations. There are no outstanding audit reports under the operations managed by these agencies. The FM arrangements in place for the ongoing operations (SUSTENTA (P149620) MozFIP (P160033), MozBio 2 (P166802), SwioFish 1(P132123/P132029)) will also apply to this operation, and changes to those arrangements are not expected. Therefore, the project funds, expenditures, and resources will be accounted for using the recently acquired and installed automated accounting software and the basis of accounting will be cash basis.

**95.** The agencies will prepare separate quarterly unaudited interim financial reports (IFRs) and provide such reports to the World Bank within 45 days of the end of each calendar quarter. The project financial statements (PFS) for components to be implemented by FNDS and ProAzul will be audited annually by the Administrative Tribunal (the country's supreme audit institution as it is mandated to audit all Government funds, including donor-financed projects) in accordance with International Standards of Supreme Audit Institutions (ISSAIs) issued by International Organization of Supreme Audit Institutions (INTOSAI). International Standards on Auditing are issued by the International Auditing and Assurance Standards Board (IAASB) within the International Federation of Accountants (IFAC). The audit for BioFund component will be carried out by a private sector audit firm acceptable under World Bank Procurement



Regulations for IPF Borrowers. Audit reports will be submitted to the World Bank no later than six months after the end of each financial year.

**96.** Concerning the disbursement arrangements, no changes are expected to the disbursement methods and procedures and funds flow compared to ongoing operations mentioned in paragraph 91 and 94 above, using same implementing agencies. Therefore, disbursement of IDA funds will continue to be done on a transaction's basis (statement of expenditures [SOEs]), and the proposed project will also make use of advances, direct payments, reimbursement and special commitment methods for disbursements.

**97.** The Project's FM arrangements have an overall residual FM risk rating of Substantial, which satisfy the World Bank's minimum FM requirements under the World Bank's Policy and Directive for Investment Project Financing.

## **Procurement**

**98. Applicable Procurement Procedures.** Procurement activities under the proposed project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated July November 2020, the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

**99. Procurement Implementation Arrangements:** Procurement planning, procurement processing, contract management and the related decision-making authority under the proposed project will be carried out by FNDS, ProAzul and BIOFUND. The FNDS, ProAzul and BIOFUND procurement units are currently implementing projects financed by the World Bank, and therefore, are familiar with the World Bank procurement procedures, including the knowledge of the World Bank's Procurement Regulation. The units are well equipped with office space and all the means to perform the work of the ongoing portfolio satisfactorily. A virtual procurement capacity assessment was carried out to determine whether FNDS, ProAzul and BIOFUND have acceptable procurement arrangements and capacity to implement the ongoing and planned World Bank-financed operations. The procurement assessment found that the FNDS team is composed of four procurement specialists supporting all projects (active and under preparation) who are asked to focus on tasks depending on FNDS priorities and the perceived workload of each specialist. Two procurement specialists are under selection process to enhance the capacity of the unit; the ProAzul team is composed by one specialist and one procurement assistant and considering the number of MPS operations and the daily procurement workload of ProAzul, one more procurement assistant will be hired using the project resources; and the BIOFUND team currently comprises one procurement specialist and one additional procurement specialist will be hired using the project proceeds.

**The residual fiduciary risk is Substantial.**



## C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

## D. Environmental and Social

### ESF instruments

**100.** Seven relevant standards have been identified through the environmental and social risk screening: ESS1: Assessment and Management of Environmental and Social Risks and Impacts; ESS2: Labor and Working Conditions; ESS3: Resource Efficiency and Pollution Prevention and Management; ESS4: Community Health and Safety; ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement; ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources; ESS10: Stakeholder Engagement and Information Disclosure.

**101.** To comply with Environmental and Social Framework (ESF) requirements and to enhance the environmental and social outcomes of the project, the following instruments have been prepared and disclosed:

- ESMF (disclosed May 14, 2021)
- Environmental and Social Commitment Plan (ESCP) (disclosed May 13, 2021)
- Stakeholder Engagement Plan (SEP) (disclosed May 13, 2021)
- RPF: to provide guidance on minimizing land acquisition and related physical or economic displacement; compensating PAPs; rehabilitating livelihoods; addressing grievances; and implementing the RPF through location-specific RAPs following the guidelines set out in the RPF (to be disclosed June 10, 2021)
- Process Framework (PF): to ensure that protected area and fishery dependent people's access to livelihoods is not adversely impacted by the project (disclosed May 24, 2021)

In addition, the following instruments are under preparation by the recipient by project effectiveness:

- Conflict and Social Assessment to assess the dynamics of conflict and political economy and its impacts/links with poverty, livelihoods, exclusion and marginalization especially of women to be prepared, disclosed, consulted and adopted before Effectiveness
- Security Risk Assessment (SRA) to better identify and assess the demands and opportunities in the northern provinces of Mozambique considering security issues and develop a Security Management Plan (SMP) to be prepared before effectiveness.

**102.** The ESMF provides the overarching environmental and social management guidelines, including the identification of potential risks and impacts, address and identify measures to avoid minimize and mitigate potential impacts The ESMF also provides environmental and social tools and protocols to be adopted by the Borrower and applied to each sub-project. The ESMF includes:

- Labor Management Procedures (LMP) to manage labor risks during implementation and ensure



safety and health of the workforce while working in project activities

- Pest Management Plan (PMP) to ensure safe pest management procedures are applied by smallholder farmers engaged in project activities under Component 1
- Risk Hazard Assessment (RHA) to assess climate vulnerability and develop an Emergency Preparedness Plan (EPP)
- GBV risk assessment to inform the Project on the level of GBV risk and develop an a GBV/SEA/SH action plan
- Guidelines for Chance Finds Procedures in case potential impacts on cultural heritage near or on any project sites are identified.

**103. The Environmental risk is rated as Substantial.** Key environmental risks and impacts stemming from Component 1 are associated with increased use of pesticides, habitat clearing, community work, planted forests and agroforestry systems, supporting activities in rural communities e.g. conservation agriculture and fisheries and aquaculture-related value chains. Other risks and impacts include, the rehabilitation or construction of local small-infrastructure, where community health and safety concerns are expected, and other occupational health and safety concerns related to the use of vehicles, construction equipment and machinery to directly and indirectly contracted workers. Additional risks are related to civil works activities close to CAs and sensitive terrestrial, marine, and coastal habitats (particularly in mangroves and riverine areas) and fauna disturbance and degradation due to earth movements, soil and water bodies contamination through uncontrolled spillages, mainly during construction phases; waste generation and handling (both solid and sewage); air, soil and water bodies contamination due to civil works, livelihoods activities and agro-processing industries, nuisance, and traffic safety issues to the community.

**104.** Under Component 2, limited risks and impacts are expected, particularly from improvement of infrastructures for law enforcement, biodiversity conservation and tourism development. The other activities are mostly technical assistance activities (e.g. improving artisanal fisheries licensing and registration; revision and implementation of CA Management and Business Plans) that fall under Type 3 (capacity building activities) which have more diffuse impacts, often playing out over a longer term. Since site-specific locations of interventions are not yet known, an Environmental and Social Management Framework (ESMF) has been prepared and disclosed to manage environmental and social risks.

**105. Social risks are rated as High.** The project will have significant social benefits for the local communities who face an insecure future due to the prevailing insecurity in the region. Benefits include greater social cohesion due to community-based actions, improved income security especially for women, youth, and IDP and improved benefit-sharing of natural resources. Key social risks include (i) land acquisition and resettlement, (ii) labor issues, (ii) increased risk of Sexual Exploitation and Abuse (SEA)/GBV in a crisis-affected area, and (iv) community conflicts and the uncertain social dynamics in a conflict-affected area. Infrastructure works under the project will require small parcels of land and could lead to some impacts on livelihoods. A Resettlement Policy Framework has been prepared and disclosed to guide the development of specific instruments before civil works take place. While infrastructure works are expected to use local labor, the risk of child labor and/ or forced labor cannot be ignored. It is crucial to ensure that local labor laws and the requirements of Environmental and Social Standards (ESS) 2 are followed and Labor Management Procedures are defined under the ESMF.





**106.** The risk of Sexual Harassment (SH)/SEA/GBV is possible given the focus on rural areas with possibly men and women working in unsupervised conditions. GBV risks are also related to the interventions related to women's economic empowerment with improved agricultural practices, access to credit and services. A GBV Risk Assessment for the Project has been carried out to assign the level of risk and propose requisite measures. The risk of conflicts within communities and with the project is also possible unless the prioritization of communities for receiving project benefits is done in a transparent manner and through consultations particularly regarding the CDD component. Strong communication and consultation mechanisms will need to be in place to mitigate this risk.

**107.** Under Component 2, the project will strengthen sustainable management of natural resources including the improvement of fisheries surveillance, strengthening sustainable forest management, capacity building, promoting stakeholder's engagement and the improvement of small-scale infrastructure for improved management of CAs. There is a risk that natural resources dependent communities living in CAs may face restrictions on their livelihoods. Surveillance of fishing regimes may also have a similar impact. A Process Framework (PF) has been prepared and disclosed to ensure that the livelihoods of communities dependent on natural resources is not impacted negatively. The risk of social conflict is possible with increased surveillance and control activities, and a strong community consultation strategy will need to be developed and implemented.

**108.** Proposed activities under Component 1 and 2 will need to manage the risks related to selection criteria of beneficiaries (particularly youth, women, and IDP), considering the socio-cultural norms in Northern Mozambique (matrilineal communities). Vulnerable and disadvantaged groups (young farmers and fishers, women, IDP, communities living in geographically remote and challenging areas, etc.) are likely to have inequitable access to project benefits. A Social Risk and Conflict Assessment is being conducted on dynamics and drivers of conflict, exclusion and political economy, to be completed before effectiveness. The assessment will also analyze how insecurity and political economy affect the livelihoods of vulnerable and poor groups. Overall, the most significant social issue faced by the project is the insurgency in Cabo Delgado and its impact on local communities which is the main reason for high risk. There needs to be an improved understanding of the contours, dynamics and effects of the security situation, its links to political economy of the region and how it impacts local livelihoods in the project areas.

### **Grievance Redress Mechanism**

**109.** The project will establish a GRM to allow project-affected people and other stakeholders to seek satisfactory resolution to grievances they may have in relation to the project. The GRM will help ensure that rights and interests of affected people/beneficiaries are protected, and concerns are adequately addressed. The grievance process is based upon the premise that it imposes no cost to those raising the grievances (that is, complainants), that concerns arising from project implementation are adequately addressed on time, and that participation in the grievance process does not preclude pursuit of legal remedies under national law. The GRM will allow the potential affected people to use different channels to report their grievance. An indicator on grievances registered related to delivery of project benefits effectively addressed is included in the results framework with a target of 90 percent.



## GRIEVANCE REDRESS SERVICES

**110.** Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## KEY RISKS

**111. Overall, the risk of the proposed project is assessed as High.** The combined environmental and social risks associated are rated high, with the social risks rated high, and the environmental risks rated substantial. The political and governance risk is assessed as high, while the macroeconomic, institutional capacity and fiduciary risks associated with project are substantial.

**112. Political and governance risk is rated High.** The ongoing conflict in Cabo Delgado, the unpredictability of the direction it may take and the areas where it may spread, represent an additional substantial risk to implementation. The project will promote coordination mechanisms to articulate efforts across the various levels of the government to minimize such risks and adopt an approach that targets population by vulnerabilities to help to prevent the spread of the conflict. The risks of elite capture, of exclusion of vulnerable groups and of worsening governance will be mitigated by concrete and transparent criteria for the selection of the communities, as well as governance and NRM training that will raise communities' awareness. Selection criteria and the list of communities selected will be available to the public. Finally, participatory monitoring of both district and community CDD investments has been put in place.

**113. The combined environmental and social risks associated with project interventions are rated High.** Environmental risks are Substantial, in particular those related to resource efficiency and pollution as well as biodiversity conservation and sustainable management of living natural resources, which are at the core of this project. In addition, although the project will have significant social benefits for the local communities who face an insecure future due to the prevailing insecurity in the region, social risks are "High," in particular those related to land acquisition and resettlement, labor issues, increased risk of SEA/GBV in a crisis-affected area. Most importantly, the project will operate in conflict-affected areas and with possibilities of conflicts between communities. However, the project specifically seeks to address the multiple drivers of conflict in northern Mozambique and will facilitate dialogue between communities while ensuring that both IDPs and host communities equally benefit from its interventions. Adhering to the instruments prepared to prevent and address environmental and social risks will be key. Finally, close supervision will allow rapid response should any of these risks come up.





**114. The residual macroeconomic risk is Substantial due to economic downturn and the continued fiscal effects of the hidden debt crisis, coupled with challenges emerging from the COVID-19 pandemic.**

After registering 7.9 percent of GDP growth on average between 2001 and 2015, Mozambique's economic performance experienced a sharp downturn. Moreover, the evolving COVID-19 crisis is expected to be aggravated further in Mozambique. The February–September 2021 FEWS NET<sup>26</sup> projection for Mozambique is that there will be an increase of 14 percent of the population that will be living in areas under crisis or worse food security conditions, bringing the total number of people in this category of food insecurity to 7.8 million. The Project will continuously monitor the COVID-19 and the macroeconomic and fiscal environment to be able to communicate program achievements to policy makers, safeguarding any potential investment reallocation effort.

**115. The residual risk on the institutional capacity for implementation and sustainability is substantial.** The successful implementation of the Program requires effective coordination across several ministries and multiple agencies at national and subnational levels. Moreover, recent institutional changes regarding the creation of Secretaries of State at the provincial level within the process of decentralization have been creating confusion regarding the distribution of responsibilities and reporting lines. The risks around institutional capacity will be mitigated through substantial technical assistance. In particular, the Project will support building of the institutional capacity of all implementing agencies and making operational the key coordination entity ADIN for improved coordination in the North.

**116. The residual fiduciary risk is substantial.** Procurement risks include: (i) turnover of procurement staff, (ii) delays in procurement processing due to limited procurement capacity and staff workload, (iii) the use of three fiduciary agencies, and (iv) limited capacity of the market and supply chain to meet the demand, due to the global nature of COVID-19 pandemic, and (iv) challenges in bids submission due to COVID-19 movement restrictions imposed by many countries worldwide. To address these weaknesses, the implementing agencies will need to (i) retain qualified staff by offering a good work environment and incentives, (ii) improve procurement capacity by hiring qualified procurement specialists familiar with the World Bank's procurement regulation to train existing specialists, and (iii) apply COVID-19 flexibilities in the bidding process in accordance with emergency operations norms agreed by the World Bank to mitigate the impact of the COVID-19 pandemic. Financial Management risks are related to country risk, the decentralized nature of Program, the use of three fiduciary agencies and capacity limitations in FNDS given its rapidly growing portfolio. An action plan has been agreed to mitigate risks, which include, among other actions, the completion of the implementation of the accounting software package at FNDS, strengthening the internal audit and accounting sectors by recruiting additional staff, and developing robust project implementation and matching grants manuals. To address the risk of use of several fiduciary agencies, the Ministry of Finance will have an oversight role in the use of funds made available to the three agencies, and lead any process of refund to the World Bank in case of misprocurement or ineligible expenditure by any of the entities.

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<sup>26</sup> The Famine Early Warning Systems Network is a leading provider of early warning and analysis on food insecurity. See: [www.fews.net/mozambique](http://www.fews.net/mozambique).



## RESULTS FRAMEWORK AND MONITORING

### Results Framework

COUNTRY: Mozambique

Northern Mozambique Rural Resilience Project

### Project Development Objectives(s)

The project development objective is to improve access to livelihoods opportunities for vulnerable communities and management of natural resources in selected rural areas of Northern Mozambique.

### Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improve livelihoods for enhanced resilience of vulnerable communities							
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by i) IDPs, ii) women (Number)		0.00	50,000.00	100,000.00	200,000.00	300,000.00	370,000.00
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by IDPs (Number)		0.00	7,500.00	15,000.00	30,000.00	45,000.00	55,500.00
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by women (Number)		0.00	15,000.00	30,000.00	60,000.00	90,000.00	111,000.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Improve sustainable NRM for enhanced resilience of local vulnerable communities							
Area under sustainable agriculture as a result of the project (Hectare(Ha))		0.00	3,000.00	6,000.00	12,000.00	14,000.00	15,000.00
Conservation areas with improved management as a result of the project (Number)		0.00	0.00	0.00	1.00	2.00	2.00
Registered artisanal fishing gears annually licensed in targeted areas. (Number)		2,172.00	2,953.00	3,734.00	4,514.00	5,295.00	6,076.00

### Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Component 1: Improving Access to Livelihoods and Community Infrastructure							
IRI 1.1 Community Driven Development disbursements (disaggregated by window) (Amount(USD))		0.00	5,000,000.00	15,000,000.00	25,000,000.00	35,000,000.00	39,600,000.00
Community Driven Development disbursements, disaggregated by District (Amount(USD))		0.00	1,500,000.00	4,500,000.00	7,500,000.00	10,500,000.00	12,600,000.00
Community Driven Development disbursements,		0.00	3,500,000.00	10,500,000.00	17,500,000.00	24,500,000.00	27,000,000.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
disaggregated by Community (Amount(USD))							
IRI 1.2 Smallholder farmer's hh that adopt climate smart and resilient agricultural assets and services (disaggregated by i) hh that received agricultural kits; ii) hh integrated in commercial VCs (Number)		0.00	9,660.00	21,820.00	26,820.00	32,820.00	38,820.00
Smallholder farmer's hh that adopt climate smart and resilient agricultural assets and services, disaggregated by i) hh that received agricultural kits (Number)		0.00	8,160.00	16,320.00	16,320.00	16,320.00	16,320.00
Smallholder farmer's hh that adopt climate smart and resilient agricultural assets and services, disaggregated by households integrated in commercial VCs (Number)		0.00	1,500.00	5,500.00	10,500.00	16,500.00	22,500.00
IRI 1.3 Targeted value chain actors receiving support under ProAzul's Matching Grants Scheme (Number)		0.00	250.00	500.00	1,150.00	1,750.00	2,250.00
Female-led individual family applicants (Number)		0.00	125.00	250.00	525.00	850.00	1,125.00
Commercial business applicants (Number)		0.00	1.00	2.00	3.00	4.00	6.00
IRI 1.4 Households effectively applying GALS (Number)		0.00	0.00	3,000.00	7,000.00	14,000.00	19,500.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
IRI 1.5 Target beneficiaries' livelihoods improved as result of project activities, disaggregated by i) IDPs, ii) women (Number)		0.00	0.00		60,000.00		111,000.00
Target beneficiaries' livelihoods improved, disaggregated by IDPs (Number)		0.00	0.00		9,000.00		16,650.00
Target beneficiaries' livelihood improved, disaggregated by women (Number)		0.00	0.00		18,000.00		33,300.00
<b>Component 2: Improved management of natural resources</b>							
IRI 2.1 Inspected forest concessions (Percentage)		0.00	60.00	70.00	80.00	90.00	100.00
IRI 2.2 Community co-management conservation partnership consolidated as a result of the project. (Number)		0.00	0.00	1.00	2.00	2.00	2.00
IRI 2.3 Volume of avoided CO2 emissions from deforestation in targeted areas (Tones/year)		0.00	500,000.00	1,900,000.00	3,400,000.00	5,000,000.00	7,000,000.00
<b>Component 3: Multi-stakeholder Coordination and Project Management</b>							
IRI 3.1 Grievances registered related to delivery of project benefits effectively addressed. (Percentage)		0.00	90.00	90.00	90.00	90.00	90.00
IRI 3.2 Province level multi-stakeholder platform in operation as a result of the project. (Number)		0.00	1.00	2.00	3.00	3.00	3.00



**Monitoring & Evaluation Plan: PDO Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by i) IDPs, ii) women	<p>Cumulative targets.</p> <p>This indicator measures the total number of direct beneficiaries that accessed livelihood improvement activities supported by the project. Livelihood improvement activities will coincide with those covered by Component 1, therefore, the target for this indicator will coincide with the target number of people benefitting from Component 1 activities. Results will be disaggregated by projects targets groups: i) IDPs, and ii) women.</p> <p>Total project beneficiaries will include, in addition to the direct beneficiaries of</p>	Annual	Field work, lists of attendance, and official records.	<p>The central Monitoring and Evaluation team will annually track and consolidate the total number of beneficiaries that accessed livelihood improvement activities supported by the project. The results will be disaggregated by projects targets groups: i) IDPs, and ii) women.</p>	FNDS



	Component 1, those that will benefit from Component 2 and Component 3, i.e. institutions and communities that will benefit from improved management of natural resources as a result of the project [Component 2], all the stakeholders that will benefit from more efficient multi-stakeholder platforms [Component 3] etc. As such, total project beneficiaries will add up to 619,000 (60% or 370,000 directly benefitting from Component 1 + 40% or 249,000 indirectly benefitting from Component 2 and 3).				
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by IDPs					
Beneficiaries that accessed livelihood improvement activities supported by the project, disaggregated by women					
Area under sustainable agriculture as a result of the project	Cumulative targets. The indicator measures area under sustainable agriculture as a result of the	Annual	Field work.	The local M&E team will measure the area (ha) of randomly selected cropped fields	FNDS





	adoption of improved climate smart and resilient agricultural assets and services in target areas.			under conservation agriculture using metric tapes in the field. The average size will be used to estimate the total area for the project.	
Conservation areas with improved management as a result of the project	Non-cumulative targets. This indicator measures the number of target Conservation Areas with progress in management effectiveness as a result of the project. The target CAs are: i) Ilhas Primeiras e Segundas (APAIPS), and ii) Niassa National Reserve (NNR).	Annual	Data on ACs that come under improved management , are collected by ANAC using the Management Effectiveness Tracking Tool (METT).	Conservation areas (5,240,926 ha) that come under improved management, as measured by the Management Effectiveness Tracking Tool (METT). The targets will include protected areas of Ilhas Primeiras e Segundas (1,040,926 Ha), and Niassa National Reserve (4,200,000). Conservation Area brought under improved management is accounted for when their METT score achieves the following targets: Ilhas Primeiras e Segundas: 41 (24% increase)	FNDS/BIOFUND



				Niassa National Reserve: 54 (20% increase) The CAS' METT Score baselines are: Ilhas Primeiras e Segundas: 33 Niassa National Reserve: 45	
Registered artisanal fishing gears annually licensed in targeted areas.	Non-cumulative targets. The indicator measures the annual number of registered artisanal fishing gears that are licensed in target areas (Fishing law 22/2013, article 39, number 3).	Annual	Official record.	The central Monitoring and Evaluation team will track and consolidate annual local government official records in project target areas (Fishing law 22/2013, article 39, number 3). The number of licensed artisanal fishing gears is based on the most recent official Fisheries Census, disaggregated by districts.	FNDS/ProAzul



**Monitoring & Evaluation Plan: Intermediate Results Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
IRI 1.1 Community Driven Development disbursements (disaggregated by window)	Cumulative targets. The indicator measures the volume (USD) of disbursements made by the CDD fund to finance community projects in two different windows: i) District: will finance social and economic infrastructure that can generate positive spill-overs for several communities in the same districts. ii) Community: will allow for small grants to improve communities' basic socio-economic infrastructure needs.	Annual	Official record.	Central and local M&E team will track and monitor the disbursements.	FNDS
Community Driven Development disbursements, disaggregated by District					
Community Driven Development disbursements, disaggregated by Community					
IRI 1.2 Smallholder farmer's hh that adopt climate smart and resilient agricultural assets and services (disaggregated by i) hh that received agricultural kits; ii) hh	Cumulative targets. The indicator measures the number of smallholder farmer's households that	Annual	Field work	The measurement focus is the target beneficiaries of the program (households	FNDS



integrated in commercial VCs	adopt climate smart and resilient agricultural assets and services, disaggregated by i) households that received agricultural kits; ii) households integrated in commercial VCs as a result of the project.			located in vulnerable communities). Target beneficiaries will be monitored by the Project Implementation Units (UIP) at the provincial level with support from the central Monitoring and Evaluation team of the project. The indicator's annual result will be the number of the total beneficiary households adopting climate-resilient agricultural assets and services that received agricultural kits and/or was integrated to value chains (VCs) through the Government Matching Grant Mechanism.	
Smallholder farmer's hh that adopt climate smart and resilient agricultural assets and services, disaggregated by i) hh that received agricultural kits		Annual			FNDS
Smallholder farmer's hh that adopt climate smart and resilient		Annual			FNDS



agricultural assets and services, disaggregated by households integrated in commercial VCs					
IRI 1.3 Targeted value chain actors receiving support under ProAzul's Matching Grants Scheme	<p>Cumulative targets. ProAzul's Matching Grants finances the businesses of participants while sensitizing and providing training for them to be good stewards of the environment. The Scheme is divided into two windows: (i) window 1 targets artisanal fisheries value chain operators; and (ii) window 2 targets commercial fisheries, aquaculture and other blue economy value chains. Individual family applicants are operationally defined as window 1 applicants. Commercial business applicants are operationally defined as window 2 applicants. Each application (be it from an individual or commercial entity) counts as 1 unit of output for the indicator, regardless of whether there are joint business plans from several</p>	Annual	Official records	The data will be collected by ProAzul's Matching Grants Management Unit (MGMU) with the support of the project central M&E unity.	FNDS/ProAzul



	producers.				
Female-led individual family applicants					
Commercial business applicants					
IRI 1.4 Households effectively applying GALS	Cumulative targets. The indicator measures the number of target beneficiaries' households effectively applying Gender Action Learning System - GALS. The application will be considered effectively when the households achieve stipulated milestones set out in the GALS Manual, which self-verify the household's level of GALS usage. Further details of this will be spelled out in the POM.	Annual	Official records	The community facilitators will provide information on this on a quarterly basis to the local M&E Team, who will compile it to the Central level. The data will be collapsed in annual basis for monitoring purposes.	FNDS/ProAzul
IRI 1.5 Target beneficiaries' livelihoods improved as result of project activities, disaggregated by i) IDPs, ii) women	Non-cumulative targets. The indicator measures target beneficiaries' income level variation based on their income estimation through the Survey of Wellbeing via Instant and Frequent Tracking (SWIFT) methodology.	Once every two years.	Field work.	The Survey of Wellbeing via Instant and Frequent Tracking (SWIFT) methodology collects poverty correlates data, such as household size, ownership of assets or education levels, and then converts them to	FNDS



				<p>poverty statistics using estimation models. SWIFT can generate poverty and inequality statistics as well as poverty profiling and benefit incidence analysis.</p> <p>After the baseline estimation, with the foreseen survey rounds, the objective is to estimate target beneficiaries' growth of mean income over time. The target will be considered achieved with a statistically significant increase in the income level.</p>	
Target beneficiaries' livelihoods improved, disaggregated by IDPs		Every two years	Field work.		FNDS
Target beneficiaries' livelihood improved, disaggregated by women		Every two years			FNDS
IRI 2.1 Inspected forest concessions	Non-cumulative targets. The indicator measures the percentage of forest concessions that are	Annual	Field work and official records	The local M&E team will track the number forest concessions that are inspected during	FNDS





	annually inspected.			each project year. This data will be sent to the M&E central level for consolidation.	
IRI 2.2 Community co-management conservation partnership consolidated as a result of the project.	<p>Cumulative targets. The indicator measures the level of community engagement in the management of the Chipanje Cheto community area and in the L4 East Block within the Niassa Reserve. The co-management will be considered consolidated after the:</p> <p>Chipanje Cheto community</p> <ol style="list-style-type: none"> <li>1. Declaration by the Government of the CCA belonging to the Chipanje Cheto community.</li> <li>2. Existence of community legal entity with established leadership and governance system functional.</li> <li>3. Regularization of the concession contract between the private sector and local community to conform with the new category of the area CCA.</li> </ol>	Annual	Field work and official records	Local M&E team will collect the Decree of creation of Chipanje Cheto CCA and the Resolution of granting Block L4 concession to local community. It will also collect the contracts between private sector and the legal entity of the local communities of both areas. It will collect reports of establishment of Governance structures and interview them on how they are exercising the governance and on their relationship with the private partner.	FNDS/BIOFUND



	<p>4. Community capacity for governance, management and implementation of concession contract with the private sector strengthened.</p> <p>5. Clear channels of communication between the community and the private sector established and functional.</p> <p>6. Income-generating activities for communities linked to existing livelihoods in place.</p> <p>L4 East Block within the Niassa Reserve</p> <p>1. Concession the Block L4 granted to local community by the Government.</p> <p>2. Existence of community legal entity with established leadership and governance system functional.</p> <p>3. Contract between the private sector and local community to operate in the concession.</p>				
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	<p>4. Community capacity for governance, management and implementation of contract of concession with the private sector strengthened.</p> <p>5. Clear channels of communication between the community and the private sector established and functional.</p> <p>6. Income-generating activities for communities linked to existing livelihoods in place.</p>				
IRI 2.3 Volume of avoided CO2 emissions from deforestation in targeted areas	<p>Cumulative target. The indicator measures the volume of avoided CO2 emissions from deforestation as a result of improved agronomic and natural resources management practices in target areas.</p>	Annual	<p>Earth Observation data (Activity data) and National Forest Inventory: In-situ data collection (Emission Factors)</p>	<p>Only emissions from deforestation will be monitored. The satellite and monitoring system will be used produces the activity data. It will specifically generate the information on the number of hectares of deforestation within the 18 districts using a systematic stratified sampling. Emission factors will be derived from the National Forest Inventory data (same EF as the ones</p>	FNDS



				<p>used at the National Level will be applied). The EF will provide the tonnage of carbon stored per unit hectare of forest and this varies from one type of forest to another. The combination of the Activity data and Emission Factors will generate estimates of the annual CO2 emissions within the 18 districts. Information at district level will also be generated. These annual emissions will be compared against the baseline of the 18 districts (7,748,242.72 - historical emissions between 2003 – 2013) and the difference will be the portion of avoided CO2 emissions from Deforestation. A cumulative target of 7MTCO2e over 5 years is set.</p>	
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IRI 3.1 Grievances registered related to delivery of project benefits effectively addressed.	Non-cumulative targets. This indicator measures the efficiency of the Grievance Redress Mechanism. Grievance registered includes all local Communities and other interested stakeholders' grievances registered in the Project's Grievance Redress Mechanism. Effectively addressed are those grievances that are addressed on time and manner (according to guidelines to be determined in the Project Implementation Manual).	Annual	Safeguards instrument service	Data compilation by the central M&E team.	FNDS/BIOFUND/ProAzul
IRI 3.2 Province level multi-stakeholder platform in operation as a result of the project.	Non-cumulative targets. This indicator measures the number of multi-stakeholder platform in operation as a result of the project. This includes multi-stakeholder platforms to be coordinated by ADIN at the level of each province, to facilitate dialogue, private sector involvement, and landscape/local-level monitoring. These coordinating platforms will	Annual	Official records.	Data compilation by the central M&E team.	FNDS



	help improve the ability of local institutions to plan, protect, and restore ecosystems, and develop strategies for increasing preparedness and resilience to climate change. They will be considered in operation if: i) have biannual meetings; ii) publish meeting minutes and the list of participants.				

## ANNEX 1: Detailed Project Description

### Project Strategy

- The proposed project's activities will address three of the main causes of fragility in northern Mozambique and will build the resilience of the population.** More specifically, the project will address the following fragility drivers: (i) exclusion of local communities and IDP (particularly women and youth) from access to sources of livelihoods depending on renewable natural resources; (ii) environmental degradation, climate variability and limited capacity of formal institutions to manage natural resources in a sustainable and inclusive manner; and (iii) exclusion of local communities and IDP from managing and deciding over use of natural resources. The project will finance activities at two levels: community activities focused on creating livelihood opportunities for the targeted beneficiaries and support to public institutions at national (MTA, MADER, MIMAIP, FNDS, ProAzul, BIOFUND) and provincial/ district level (ADIN, ANAC, SPAE, SDAE, SDPI) to manage the natural resource base in the region more effectively.
- The project will contribute to improving rural livelihoods in targeted districts in Cabo Delgado, Nampula and Niassa provinces by working with agriculture, fisheries, and forest livelihoods.** It will promote a strong base for inclusive and participatory engagement with rural populations to allow communities to benefit from economic opportunities offered through the project.

**Table 1.1. Project components (US\$, millions)**

<b>Component 1- Improving Access to Livelihoods and Community Infrastructure</b>	<b>98.8</b>
Subcomponent 1.1: Livelihoods Stabilization through Community Driven Development	52.0
Subcomponent 1.2: Sustainable Agriculture Interventions	28.8
Subcomponent 1.3: Sustainable Fisheries Interventions	18.0
<b>Component 2 – Improving Management of Natural Resources</b>	<b>41.5</b>
Subcomponent 2.1: Improved Management of Forests and Climate Risks	12.6
Subcomponent 2.2: Improved and more Inclusive Management of Conservation Areas	24.6
Subcomponent 2.3: Improved management of Fisheries Resources	4.3
<b>Component 3- Multi-stakeholder Coordination and Project Management</b>	<b>9.7</b>
<b>Component 4- Contingency and Emergency Response</b>	<b>0</b>
<b>TOTAL</b>	<b>150</b>

### **Component 1: Improving Access to Livelihoods and Community Infrastructure (US\$98.8 million equivalent)**

- This component will address fragility driver *exclusion of local communities and IDP (particularly women and youth) from access to livelihoods depending on renewable natural resources*.** To this end, it will adopt a CDD approach, emphasizing community control over planning and investments decisions. This approach will blend an innovative participatory district and community grant scheme in Mozambique, with specific support to agriculture smallholders and fishers already under implementation through World Bank support through the SUSTENTA and SwioFish 1 Projects with satisfactory ratings in Mozambique.





4. **Subcomponent 1.1: Livelihoods Stabilization through Community Driven Development (US\$52 million equivalent)**

5. **The CDD approach to local development gives control over planning decisions and investment resources to communities and local governments.** Experience with CDD models globally has demonstrated that communities, with appropriate support, can effectively and efficiently identify and address their local development needs. The subcomponent aims at i) generating sustainable livelihoods opportunities, ii) promoting inclusive and participatory development, and iii) strengthening social integration.

6. **The subcomponent will have two windows addressing different target groups (district and community level)** and financing specific activities for each group:

7. **Subcomponent 1.1.1: District support (US\$18 million equivalent):** Each of the 18 target districts will receive up to US\$700,000 throughout the lifetime of the project for one or more infrastructures. This window will finance social and economic infrastructures that can generate positive spill-overs for several communities in the same districts. These may include secondary schools, maternity wards, feeder roads, markets, and irrigation schemes, all of which will be adapted to local climate risks. District authorities will receive training from the CDDMU to enable the selection, preparation and management of the projects. The districts will be responsible for maintenance of district and community infrastructure built under the project.

8. **The eligibility criteria for the selection of the infrastructures** will be (i) included in the Economic and Social District Development Plan (ESDDP); (ii) benefitting more than one community; (iii) priority given to labor-intensive projects (minimum 35 percent local labor); (iv) climate resilience infrastructures; (v) no significant social and environmental impacts; (vi) cleared and supported by provincial authorities; (vii) completed before project closure.

9. **A consultative update of the ESDDP will be conducted in a participatory manner**, including district authorities, lower-level consultative councils and communities, and the group will decide the infrastructure(s) to be constructed/rehabilitated with project funds, based on eligibility criteria. FNDS will transfer the funds to an account opened by the district specifically for each infrastructure. The funds will be transferred in three tranches: 50 percent, 30 percent and 20 percent. The release of the second and third tranche will be subject to the satisfactory implementation of the works and satisfactory financial reporting. District authorities with the support of the CDDMU will implement the project.

10. **District authorities will develop a monitoring form and conduct periodic site visits to verify technical quality of sub-projects.** The CDDMU will continuously monitor the works and the accounting and will produce progress reports to be submitted to national-level stakeholders and the World Bank. A participatory citizen monitoring mechanism of infrastructure building and maintenance will also be established.

11. **Subcomponent 1.1.2. Community Support (US\$34 million equivalent):** A total of 300 communities will receive up to US\$90,000 for five years for community infrastructure and livelihoods activities. The community window will give small grants to communities to improve basic social and economic infrastructures, enhance livelihood and strengthen social cohesion. By involving communities in the decision-making, planning and monitoring of such infrastructure and livelihood investments, the project



will ensure that they are relevant and that the project contributes to ownership and increased capacity to manage sub-projects.

12. **The community can choose one or more activities from a menu of climate-adapted infrastructure and sustainable livelihoods** including, based on the needs and priorities of the community and the community agendas, but not limited to the following:

- **Provision of water:** Community boreholes, small irrigation schemes
- **Provision of energy:** Climate friendly off-grid energy provision (solar panels, etc.)
- **Improvement in education and health facilities:** Small rehabilitation or improvement of schools and health posts, teacher's houses, school latrines
- **Agro-forestry and restoration activities:** Tree planting, non-timber forest products commercialization and artisanry
- **Employment promotion for youth:** Vocational training in sectors identified as having economic potential, followed by internships and start-up-kits
- **Livelihood projects for women:** Women's economic activities (horticulture, bee-keeping, etc.) with linkages to relevant market demands in the area.
- **Savings and credit groups** designated for women and IDPs to increase their financial independence and livelihoods options
- **Community agro-processing facilities**, for example maize mills, rice hullers

13. **The eligibility criteria for the selection of the infrastructures will be** (i) positive/negative lists of activities; (ii) included in Community Agenda; (iii) benefitting the whole community; (iv) climate resilient infrastructure; (v) sustainable, NRM friendly livelihoods; (v) no significant social and environmental impacts; (vi) validated by district authorities; (vii) completed before project closure, (viii) establishment of a management committee for operations and maintenance, (ix) involvement of local labor.

14. **The eligibility criteria for livelihood activities will be:** (i) positive/negative lists of activities; (ii) direct benefits to the community or a community group; (iii) no significant social and environmental impacts; (iv) completed before project closure.

15. **The service provider will ensure inclusion and diminish the risk of elite capture by living up to inclusion standards and conducting a participatory capacity building process which includes:** (i) training in community governance, financial management, NRM and climate change awareness, (ii) preparation of the community agenda, in a participatory manner ensuring the voices of vulnerable groups are reflected and with measures to avoid elite capture, and (iii) democratic election of the community committee, after which the communities will select from the menu one or more priority activities in the community agenda on the basis of the eligibility criteria and the budget.

16. **The funds will be sent from FNDS to service providers for the implementation of the activities according to the annual allocation.** The subsequent allocations will be subject to satisfactory completion of the works of the previous year and sound accountability. This implementation modality will be evaluated after the first year of implementation. Communities readiness to take on progressively more responsibility will be strengthened by the project and assessed periodically.

17. **A community monitoring committee**, comprising community members including vulnerable groups, will routinely conduct participatory monitoring (for example, scorecards). The CDD Management

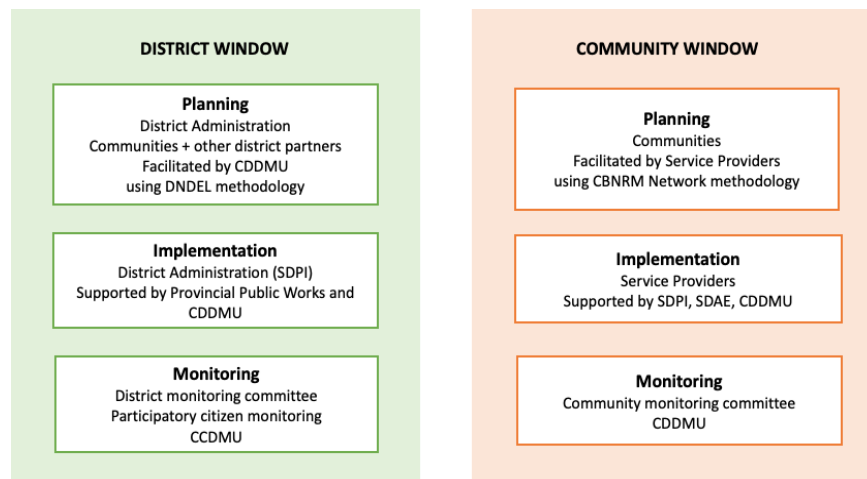


Unit (CDDMU) will monitor project implementation (including through quarterly site visits), and for reporting progress and results to other national-level stakeholders and the World Bank. Relevant district authorities will participate in monitoring of the projects

18. **Institutional arrangements.** A CDDMU will be set up with specialized staff under FNDS. The CDDMU will be based in the PIU in Pemba with few assistants in the PIUs of Nampula and Niassa. The CDD Management Unit's key tasks will include overall technical supervision and coordination, planning of activities, support to district and communities in the preparation of project proposals and procurement, quality oversight, communication, safeguards management, reporting, procurement, financial management, monitoring of project activities and reporting on CDD progress on a regular basis. A comprehensive implementation manual will be developed for the CDD component that includes clear rules, eligibility criteria, accountability mechanisms and role of agencies and stakeholders involved. This will build on successful participatory methodologies used by the government in other projects<sup>27</sup>.

19. **The implementation manual will be prepared by FNDS.** The CDDFMU will work in close collaboration with the provincial directorate for civil works, SDPIs (that will support and monitor the construction/rehabilitation of infrastructures), and SDAEs (that will focus on income generating activities). Figure 1.1 depicts the CDD district and community window planning, implementation and monitoring processes.

**Figure 1.1. Activity flow under CDD windows**



### ***Subcomponent 1.2: Sustainable Agriculture Interventions (US\$28.8 million equivalent).***

<sup>27</sup> A US\$32.5 million EU project (PRODEL) promoted economic development in rural areas which constructed economic infrastructures based on a participatory method in over 50 districts. The project was implemented by district authorities with MADER support who developed manuals and protocols to facilitate the implementation and ensure accountability. Lessons from this project will be included in the development of the manual. The auditor of the project (KPMG) issued a qualified financial audit opinion, noting that the Project funds provided by the European Commission have been used in conformity with the applicable Contractual Conditions.



20. **This Subcomponent aims at strengthening resilience of local agricultural production while promoting the integration of both, IDP and host communities involved in agriculture in Nampula, Niassa and in the south of Cabo Delgado.** The approach that will be followed, with a few but relevant modifications to adapt to the fragility context in the North, addresses family farmers needs through a scalable model. In this model groups of Smallholder Farmers (SFs) who use traditional varieties and low level of inputs and technical assistance will leverage a SECF, already integrated to the market, who will serve as aggregator and facilitate SFs market integration. In selected disadvantaged areas of the three northern regions, with a widespread presence of subsistence agriculture and particularly acute FNS issues, the support to vulnerable smallholder producer groups (*blocos productivos*) will be provided through extension agents specifically trained on staple crops and FNS practices and by local partners with presence in the region.

21. **Subcomponent 1.2.1 Matching Grants for SECFs (US\$19.0 million equivalent):** The project will build on existing experience on integrating SFs<sup>28</sup> into input and output markets by providing financial resources that will boost farmers' ability to connect to markets. The project will finance matching grants (SECF grants) that will span from 85 percent (for women, youth and IDPs SECF) to 80 percent (other SECF) to support the preparation and implementation of SECF business plans for investments into priority value chains<sup>29</sup> in the project area, including support to farmers provided by public extension agents. This activity will be delivered through the FNDS matching grants unit, in close cooperation with the district level extension services (SDAE). The project will implement this activity only in nine of its 18 districts since the remaining nine will benefit from the same type of support under the SREP (P174002). Support to farmers will also include training and technical assistance provided by the extension services. This approach is based on the experience from ongoing projects, in particular the SUSTENTA, (P149620), that it is paramount to prioritize agriculture value chains in which project beneficiaries should invest to ensure their ability to have financial and economic returns. Based on their historical importance in Mozambique's food security and access to market, the following value chains will be of priority: horticulture, sesame, sunflower, maize, beans, cashew nuts, cassava and poultry.

22. **To ensure their investments, SECFs will need to respond to calls for proposals that will be issued by FNDS.** In addition to the conditions already in use in SUSTENTA, such as the financial economic and technical viability of the Business Plans (BP) or the compliance with safeguard measures, the following priority criteria will be added for business plans to be evaluated and approved for financing: (i) the BP is climate-smart agriculture oriented; and (ii) the BP shows that at least 25 percent of smallholder farmers that will benefit are IDP. FNDS will prepare a detailed implementation manual for the SECF Grants to be financed under the project which will be annexed to the PIM.

23. **Two financing windows will be available to beneficiaries SECF** who have demonstrated experience and knowledge in farming, with at least five hectares of cropping area, and who are already market oriented: (i) standard SECF, men in their middle or late age. They receive 80 percent grant of the amount eligible as per business plan and need to provide 20 percent as own contribution; and (ii) youth and women SECFs, women or young people. They will receive 85 percent grant and need to provide 15 percent own contribution. The percentages and rules for both windows are aligned with those of other Bank-supported projects that finance SECFs in Mozambique, with special reference to the SUSTENTA

<sup>28</sup> Under the SUSTENTA project (P149620).

<sup>29</sup> Including horticulture, sesame, sunflower, maize, beans, cashew nuts, cassava and poultry



project and related PIM (P149620). It is expected that the sub-component budget will be allocated for about two third to standard SECFs (or about US\$12.0 million) and for the remaining third to women and youth SECFs (US\$6.35 million) for a total of 225 SECFs BPs financed (150 men SECFs and 75 women and youth SECFs). The table below presents the main differences between SECFs under the Sustenta and the MozNORTE Projects.

**Table 1.2 SECF support under SUSTENTA and MozNorte**

	<b>SUSTENTA</b>	<b>MozNORTE</b>
Item		
Cultivated Area by a SECF	More than 7 hectares	More than 5 hectares
Area Cultivated by smallholder farmer	Up to 1.3 ha	A minimum of 0.5 ha
Number of smallholder farmers assisted	200	100
IDP included in the business plan	None	At least 25 percent
Priority agriculture value chains	Horticulture, sesame, cashew nuts, pigeon peas, poultry maize, soya, fruit treesi	Horticulture, sesame, soya, sunflower, maize, beans, cashew nuts, cassava and poultry.
Restoration of degraded areas	The business plan presents a restoration plan for degraded areas within the DECF's area	SECFs' business plans will not include a restoration plan for degraded areas

24. It is expected that the project will finance 225 SECFs for a BPs' average amount of US\$82,000. By the end of the project each SECFs is expected to be associated with a minimum of 100 SFs for a total target of 22,500 SFs. Assuming an average of five members for each SF household the expected number of direct beneficiaries under the sub-component is 112,500. Alternative models of direct farmer support, in addition or in place of the proposed SECF approach, could be adopted under the sub-component to adapt in case the security situation evolves. These alternative models and associated activities, as agreed between GoM and the World Bank, will need to be detailed in the PIM.

25. **Subcomponent 1.2.2 Direct Smallholder Support for increased FNS (US\$9.8million equivalent):** The project will finance distribution of agricultural kits in selected disadvantaged areas of 14 districts (out of the 18 covered by this project), which have not been covered by the distribution of ag. kits financed by the Northern Crisis Recovery Project (NCRP, P176157) and by the Contingent Emergency Response Implementation Plan (CERIP) of Mozland (P164551). The kits will include food crops. The differences with NCRP are: i) this project will cove less extensively the area of these 14 districts than NCRP; ii) it will mainly finance kits for population hosted outside the relocation camps (similarly to the Contingent Emergency Response Implementation Plan (CERIP) of Mozland (P164551); iii) the implementation approach will be built around a single extension officer for each *bloco produtivo* of at least 100 PAs and the procurement and distribution function will be implemented by a private service provider (a local NGO); and (iv) livestock kits (small ruminants, poultry) will be also included.



26. **In these areas the extension services will support smallholders to create a group** (informal or a formal cooperative) and will provide support to develop a BP geared towards production of food crops. The BP will be assessed by FNDS and MADER and financed at 100 percent under the project. Distribution of items (potentially also procurement of the items), as well as monitoring and evaluation functions will be delegated to a local NGO that will act as service provider. Following this approach the farmers groups (*blocos productivos*) are expected to boost their productivity and overall production of food based on: i) the provision of packages similar to those provided by NCRP in four districts; and ii) the support of extension specialists specifically trained on staple crops and FNS practices. It is expected that at least 50 percent of these kits will be delivered during the first year of the project and the remaining 50 percent in the second year.

27. **About 80 percent of the Subcomponent's budget or around US\$ 7.7 million is allocated to finance provision of 16,000 agricultural kits and 300 livestock kits to 163 farmers' groups or 16,300 farmer households.** A limited budget for small infrastructure works such as cleaning of boreholes or rehabilitation of simple water harvesting solutions such as rooftop catchments is also included, linkages to the CDD support under Component 1.1 will be ensured.

28. **Finally, training for extensions officers and all associated expenses will be also supported,** including provision of needed equipment (bicycles, tablet, soil testers, etc.). The objective is to promote utilization of drought-resistant varieties, best soil fertilization techniques and low-cost technology for conservation of vegetables, early recognition and treatment of pest techniques, etc.

29. The Terms of Reference (TOR) for the extensionists used for SUSTENTA will be revised to adapt to the current project, and training will be provided to ascertain that extensionists in the selected districts will be able to cover the following functions:

- a) Planning of activities at district level and participation in all baseline and preparatory studies
- b) Mobilization and identification of specific communities' agricultural needs
- c) Monitoring of implementation of activities by SECF and SFs
- d) Provision of capacity building support to SECFs and SFs on ag. practices (in the direct support modality also on FNS topics and FNS household strategies).

### **Subcomponent 1.3: Sustainable Fisheries Interventions (US\$18 million equivalent)**

30. **Fisheries interventions will prioritize communities along the coast of Cabo Delgado and Nampula, and Lake Niassa, and will include** (i) matching grant support to eligible fishers, including internally displaced fishers and fishers in host communities, as well as SMEs for the development of fisheries and aquaculture-related value chains through the *Mais Peixe Sustentável* (MPS) matching grants scheme; and (ii) support to select infrastructure linked to the marketing of fishery products, considering climate resilience standards, and iii) mangrove restoration. ProAzul, under MIMAIP, will implement activities under this sub-component, as it has a successful track-record of implementing similar activities in World Bank projects active in other areas of the country. All activities under this subcomponent will support climate change mitigation and/or adaptation.<sup>30</sup>

<sup>30</sup> Improved storage facilities and electrification of market infrastructure will consider climate friendly technologies such as solar





31. **MPS<sup>31</sup> funds projects through two windows.** Window 1 targets artisanal fishers, traders, fish processors and transporters, carpenters and naval mechanics, and other value chain operators, providing matching grant funding of up to MZN 1.2 million for 80 percent investment in assets defined in a limited list of options (equipment for product handling and conservation, and replacement of vessels and gear), subject to participation in management training sustainable use of natural resources and practices to reduce post-harvest loss, as well as signing a commitment to sustainable management of natural resources. Window 2 targets MSMEs that partner with small-scale fishers and aquaculture operators, providing matching grant funding of up to Meticaís 20 million for a 70 percent investment in goods, equipment and services, and subject to participation of the beneficiary in training on sustainable management of natural resources, signing a commitment to sustainable management of natural resources. Other blue economy projects involving fishing communities may also be supported by Window 2. ProAzul has a dedicated implementation manual for MPS, which will be part of the overall PIM of the proposed project.

32. **Training and interventions to reduce post-harvest loss and improve value addition to fishing products will be rolled-out in connection with MPS.** Trainings will be carried out for all applicants of Window 1, while related technologies/equipment related to reduction of post-harvest loss (for example, cooling boxes, efficient smokers) will be actively promoted to spur demand met by the Scheme itself. In supporting community-based entrepreneurship, the project will seek to link access to financing opportunities with credit and savings groups supported in fishing communities under subcomponent 1.1. Wherever possible, it will also strive to promote links between community-based enterprises, firms and markets. MPS will include targeted approaches to identify and support female-owned businesses, allowing to fill the gap in financing opportunities for women. A specific allocation will be dedicated to support fishing households displaced by the conflict in Cabo Delgado, while avoiding to further increase fishing capacity in the area<sup>32</sup>.

33. **The Project is expected to support select infrastructure linked to the marketing of fishery products,** which may include the rehabilitation or construction of small markets, storage and drying facilities, and land sites, among others. Such infrastructures will have to be a demonstrated priority for respective community stakeholders, and their development process will include the elaboration of infrastructure management plans regarding details of rights and responsibilities, including on issues pertaining to the access and distribution of benefits brought about by the infrastructure asset.

34. **In line with the 2020–2024 National Mangrove Strategy, the project will support the restoration of mangrove and other coastal vegetation in select priority areas along the coast of Nampula and Cabo Delgado,** aiming to stabilize coastlines, reduce soil erosion, and enhance fish spawning and nursery areas. Selection of areas will be carried out based on an assessment of mangroves and coastal vegetation in the Northern Mozambique coast, carried out in collaboration among MIMAIP's National Fisheries Research

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power. Supported infrastructure will be climate proofed. This may include product handling and conservation infrastructure including small markets, cold chambers, upgrading of fishing landing sites, beach stabilization works, construction of haul-out ramps for small boats, construction of breakwaters and rebuilding of existing fisheries facilities. Mangrove management and restoration contributes to climate change mitigation, through the sequestration of carbon, and adaptation, through climate resilience services, stabilizing shoreline erosion, reducing storm surges, and preventing inland soil salinization.

<sup>31</sup> Mais Peixe Sustentável was designed and successfully piloted under the World Bank-funded SWIOFish1-Mozambique Project (P132123) and is expected to be scaled-up through this operation, as well as through the Sustainable Rural Economy Program (P170002).

<sup>32</sup> Such support will be initiated through the Northern Crisis Recovery Project (P176157).





Institute, FNDS MRV Unit, and other relevant institutions. The project will build the capacity and raise the awareness of community fishing councils in select areas to participate in mangrove restoration and ecosystem monitoring and management. While not depending on it, the project will seek to promote partnerships with social protection programs at the local level, aiming to scale up restoration through awareness raising and providing technical assistance to district authorities so that mangrove restoration is considered within the menu of investments in public works and other related social protection programs. Areas prioritized under this subcomponent would be the same as the ones supported in fisheries management activities under component 2.

## **Component 2 – Improving Management of Natural Resources (US\$41.5 million equivalent)**

35. This component will strengthen institutions for enhanced sustainable management of natural assets.

### **Subcomponent 2.1: Improved Management of Forests and Climate Risks (US\$12.6 million equivalent):**

36. **To address the increased need for construction materials and fuelwood around displacement areas**, specific activities include the financing of operational costs, equipment and technical assistance to support sustainable charcoal production through, i) the preparation of forest management plans for charcoal production, ii) planting of fast growing species to create woodlots in host communities for charcoal production and construction material, iii) assistance in the use of more efficient charcoal making kilns to charcoal producer organizations and/ or individual producers.

37. **Improved governance and management of forest resources** will be achieved through support to infractions prevention and detection in selected forested areas of the three project provinces, and coordination with other institutions involved in forest governance. It will also support the AQUA delegation in Cabo Delgado, and the establishment of AQUA's provincial units in Niassa and Nampula.

38. **For improved management of forest resources**, and to curb high rates of miombo forest degradation, a sustainable and inclusive forest reserve management model will be implemented in Nampula province (Mecuburi Forest Reserve<sup>33</sup>). This will include a i) quantification of commercial timber and the potential for high-market demand non-timber forest products (NTFP), ii) restoration activities within the gradually degrading forest reserve, and iii) support to effective, collaborative management of the reserve.

39. **Lastly, the project will also support revision and implementation of LAP in selected districts that are particularly vulnerable to climate change.** The Project will also support revision and implementation<sup>34</sup> of LAPs in selected districts that are particularly vulnerable to climate change. An assessment of priority areas will be conducted in the last quarter of 2021, once project starts, and will be based on the National Institute for Disaster Risk Management risk maps (for cyclones, flooding, droughts, etc.). Both revisions and implementation of LAPs will build on relevant lessons learned from past implementation, with a special

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<sup>33</sup> The Mecuburi Forest Reserve, gradually being eroded by small-holder agriculture, firewood collection, and forest degradation is the largest forest reserve in Mozambique, and second largest in Africa.

<sup>34</sup> Implementation of LAPs will both be directly financed by the Project, but districts will also be encouraged to apply for funding to implement LAPs through the CDD component.



focus on strengthening communities' role in LAP implementation and ensuring alignment with district development plans<sup>35</sup>.

**Subcomponent 2.2: Improved and more Inclusive Management of Conservation Areas (US\$24.6 million equivalent).**

40. This subcomponent will support activities in the Niassa National Reserve (NSR), including Chipanje Cheto community area, APAIPS, and QNP. These activities will support i) effectiveness of CA management, and ii) inclusive and participatory management of CAs.

**41. The support to effective CA management in NNR and APAIPS will be managed by BIOFUND and FNDS and will be implemented by ANAC and relevant partners,** the Wildlife Conservation Society (WCS) who is co-manager of NNR and the consortium formed by Centro Terra Viva (CTV), Terra Nauticus and Conserve Global in support of APAIPS. BIOFUND will finance activities related to: i) resources protection, patrol costs (including ration, fuel, helicopter hours etc.), equipment and training (including hardware and software such as field equipment, tents, radios); ii) operational costs to strengthen CA governance and human resources development, including functioning gender balanced CA management councils; iii) repair and maintenance of small infrastructures; iv) investments in basic and social assets around CAs, such as health, education, livelihood initiatives and job creation for women and youth in CA management, including the Educa+ program<sup>36</sup>. FNDS will manage: i) construction of improved and climate-resilient infrastructure for management, community and tourism development (e.g. solar-powered boreholes and inspection posts, using climate risk reduction building codes). In QNP the project will finance the finalization of the process to recategorize park<sup>37</sup>. In addition to the support within these CAs, the project will also support improved natural resources protection in the adjacent main corridors for wildlife trade. The project will also finance the i) preparation and implementation of improved and joint resources protection plans with local authorities and law enforcement agencies; ii) the establishment of kennel units in Pemba and Nacala and associated training for its use; iii) strengthening of ANAC's office in Pemba to manage and oversee the activities of the project.

**42. To support increased community engagement in CA and natural resources management the project will support two community areas inside and adjacent to NNR, including the Chipanje Cheto community area (650,000ha) and the Niassa Reserve L4 East block (109,200ha).** Together with WCS, the private operators in the area and with support from other third party NGOs, the project will finance, through BIOFUND: i) declaring the Chipanje Cheto Community Conservation Area (CCA) and formalizing and strengthening the concession and co-management arrangements in the two areas, including by strengthening communities' governance capacity and participatory development of management and business plans; ii) promotion of conservation management activities for communities linked to existing

<sup>35</sup> Lessons learned are being compiled under a broad analysis led by UNDP together with MTA. Cross-GP collaboration will also be sought between ENB/AG and the DRM Team.

<sup>36</sup> Educa+ is a joint initiative between FNDS, ANAC, BIOFUND and local District Services for Education, Youth and Technology (SDEJT), which promotes environmental education programs, youth and girls' clubs and school scholarships to girls, to raise environmental awareness and empowerment among youth around CAs. The program is under successful implementation under Mozbio 2 (P166802). It also includes essential rehabilitations of schools so that they meet basic conditions.

<sup>37</sup> The recategorization of the Quirimbas national park has been ongoing since 2018, with support from the World Bank, WWF and other partners. The objective is to facilitate sustainable management of this vast area that encompasses rich marine and terrestrial biodiversity and a large human population currently living within the borders of the Park.



livelihoods and nature-based tourism, and which also support communities to adapt to and mitigate climate change in agriculture and land management and reduce human-wildlife conflict and investments in basic and social assets around CAs such as health, education, and job creation for women in youth in CA management, including the Educa+ program<sup>38</sup>. FNDS will manage the construction of minor improved and climate-resilient infrastructure for management and acquisition of vehicles for management and patrolling by the community associations. The estimated number of beneficiaries in these two areas is around 1,500 households.

**Subcomponent 2.3: Improved Management of Fisheries Resources (US\$4.3 million equivalent)**

43. **Improving fisheries management is critical to ensure the sustainability of fish stocks and host community and IDP fishing livelihoods**, while enhancing MCS that can also contribute to addressing fragility drivers given the linkages between IUU natural resource extraction and conflict. Interventions focusing on improving fisheries management will be delivered in coastal areas and Lake Niassa, including i) improving artisanal fisheries licensing and registration, ii) strengthening fisheries' MCS, including capacity building, equipment acquisition, and support to local surveillance operations<sup>39</sup>; and iii) promoting local fisheries co-management through capacity building (for institutions and CCP), support to local fisheries management measures (e.g. temporary closures and no-take zones), and restoration of resources in overfished areas/no-take zones. Activities under this sub-component will be implemented by ProAzul.

44. **Improving artisanal fisheries licensing and registration.** The project will enable the roll-out of a new electronic licensing and registration system successfully piloted in 2020 by MIMAIP. This will include support to acquisition of hardware required for the implementation of the electronic system, training of extension agents and other Government staff engaged in implementing the new tool, and integration of data in the central fisheries management system. The transition from paper to digital data collection, registration and licensing, as well as the option of phone-based payments, will lead to a more efficient and transparent system. Furthermore, related public information should be made available online in easily accessible manner for access by citizens, researchers, entrepreneurs and other stakeholders.

45. **Strengthening fisheries' MCS capacity.** Surveillance support will focus on capacity building of inspectors, awareness raising on regulations, equipment acquisition, and support to local surveillance operations. These investments will be complemented by robust technical assistance provided to DNOP and the ADNAP under the SREP (P174002).

46. **Promoting local fisheries co-management.** In line with the General Marine Fisheries Regulations (REPMAR) updated in 2019 with support from the SWIOFish1 project (P132123), the project would support training of sector staff in promoting local fisheries co-management, strengthening of CCPs, and supporting local fisheries management measures (for example, temporary closures and no-take zones), including the development of fisheries management plans where viable. These interventions will enhance ownership and capacity of communities to manage fisheries and marine resources, as well as ensure feedback loops between beneficiaries and relevant public authorities. Synergies with subcomponents 1.1, 1.2 and 1.4 will be ensured, so that communities prioritized for the development of community capacity building and livelihood support overlap with those prioritized from a fisheries resource management perspective.

<sup>38</sup> See footnote 36.

<sup>39</sup> This will be accompanied by robust technical assistance provided to DNOP and ADNAP under the SREP (P174002)



### **Component 3- Multi-stakeholder Coordination and Project Management (US\$9.7 million equivalent)**

47. **The project will cover operational costs for the recently created ADIN, to strengthen its role as a coordinating entity for the North**, in line with the Government's vision and strategy for this institution. More specifically, this will include supporting multi-stakeholder platforms to be coordinated by ADIN at the level of each province, to facilitate dialogue, private sector involvement, and landscape/local-level monitoring. These coordinating platforms will help improve the ability of local institutions to plan, protect, and restore ecosystems, and develop strategies for increasing preparedness and resilience to climate change.

48. **Under this component, the project will support project coordination and management** activities to ensure that financial and human resources are managed in an efficient, results-oriented manner, in accordance with the project's objectives and fiduciary procedures. This component will finance the operational costs of FNDS. This includes support for project coordination and management, fiduciary, safeguards management, M&E, MRV and communications. The support will allow MIMAIP, MADER, MTA, FNDS, ProAzul, ADIN, ANAC and local governments to engage more widely with non-traditional and local actors such as civil society, CBOs, and faith-based organizations etc. to promote local voices and preferences regarding decisions in the project

49. **Environmental and Social Safeguards.** Implementation support will include supervision of social and environmental safeguards management at the central, regional, provincial and district levels, including implementation of the ESMF and ESCP provision of training and guidance to ADIN, FNDS, PROAZUL, BIOFUND, service providers, and project beneficiaries. As part of regular implementation support missions, audits and reviews will be undertaken to assess how the project manages social and environmental concerns, including through adequate staffing and monitoring. A Grievance Mechanism for workers is embedded in the LMP and a Grievance Mechanism for other affected parties in the SEP. The ESCP and SEP have been consulted and disclosed both in-country and on the website of World Bank. The PIM will detail procedures, management plans, and checklists to further support environmental and social safeguard implementation requirements.

50. **Support to MRV and M&E.** The component will strengthen the Measurement, Reporting and Verification (MRV) Unit at MADER, enhancing its capacity to monitor project activities while helping effectively understand GHG sources and trends, design mitigation strategies, and take policy actions in the face of climate change. The M&E function focuses on data collection and reporting on key performance input, output, and outcome indicators, including targeted data collection, surveys, participatory assessments, and midterm and end-of-project evaluations. TPM will be used to strengthen monitoring and evaluation systems to obtain data on the achievement of project progress.

51. **Communication.** The project will also develop a robust communication and outreach strategy at all levels of intervention to inform, prepare, and involve stakeholders actively in all stages of the project. This sub-component will support activities such as development of content and appropriate dissemination methods, that highlights the importance of achieving project objectives for the overall resilience of communities otherwise vulnerable to external shocks such as climate risk and conflict in the area. The project will also support radio and social media campaigns among target communities to foster social inclusion and dialogue, acknowledging its cardinal role in supporting resilience and well-being.



## ANNEX 2: Implementation Arrangements and Support Plan

### Institutional and Implementation Arrangements

- 1. The project will be implemented by the FNDS, ProAzul and BIOFUND, under general oversight of MADER.** MIMAIP and MTA will provide technical oversight over their respective areas of responsibility. More specifically, FNDS will be responsible for project coordination among all three implementing agencies. It will also be responsible for implementing all project activities, including support to SECF through its matching grant unit, except for fisheries interventions, which will be implemented by ProAzul (under mandate of MIMAIP), and some activities inside the Conservation Areas, which will be implemented by BIOFUND (under mandate of MTA). FNDS, in collaboration with ProAzul and BIOFUND, will lead on technical supervision and coordination, project planning, quality oversight, communication, safeguards management, reporting, procurement, financial management, and activities' progress monitoring and reporting. ADIN will support coordination with other initiatives targeting the three provinces. The roles and responsibilities will be established in the PIM that will be prepared jointly by FNDS, ProAzul and BIOFUND.
- 2. A dedicated PIU will be established in the city of Pemba, Cabo Delgado, at the FNDS provincial office.** The PIU shall be responsible for day-to-day management of the Project, including: (i) managing the implementation of Project activities; (ii) managing the procurement, financial management, disbursements, and safeguards aspects; (iii) coordinating the preparation, adjustments, and use of the Project management tools, including any updates to the PIM, annual work plan, Procurement Plan, and disbursement projections; (iv) coordinating with BIOFUND and ProAzul on the technical and fiduciary aspects of all Parts of the Project; (v) monitoring the progress of the PDO and intermediate indicators of the Results Framework; and (vi) preparing Project reports. The PIU shall be led by a Project coordinator, and shall include a procurement specialist, financial management specialist, a safeguards team (including, *inter alia*, a gender specialist, gender-based violence specialist, and a security risk monitoring and mitigation Coordinator), communication specialist, M&E specialist and one accountant. The PIU will prepare an Annual Work Plan and Budget containing all activities to be carried out in the following fiscal year that will be shared with the PSC. This Annual Work Plan and Budget will be sent to the World Bank by November 1 of each year.
- 3. A CDDMU will be set up with specialized staff to manage the CDD district and community grants component under FNDS.** The CDDMU will be based in the PIU in Pemba with assistants in the PIUs of Nampula and Niassa. The CDDMU will coordinate CDD implementation through the CDD district and community windows in close collaboration with the provincial directorate for civil works, SDPIs, SDAEs and SP. A comprehensive implementation manual will be developed for the CDDMU that includes clear rules, eligibility criteria, accountability mechanisms and role of agencies and stakeholders involved. The implementation manual will be prepared by FNDS. FNDS will transfer CDD funds to districts and service providers that will open specific bank accounts for the project.
- 4. The project will work with UN agencies (i.e. WFP, UNDP, among others) and partners on the ground.** Experienced international and local NGOs (Aga Khan Development Network, Plan International, WCS, *Centro de Promoção a Cidadania* (CEPCI), etc.), local CBOs (*Associação de Proteção a Mulher e Rapariga* (PROMURA), *Plataforma Makabo*, *Estamos*, etc.) and SP with on the ground presence (such as Technoserve, Sofreco, etc.) will be hired as needed, based on their areas of expertise. Such NGOs, CBOs, and SP will provide support to the implementation of activities under Component 1 and Component 2. All



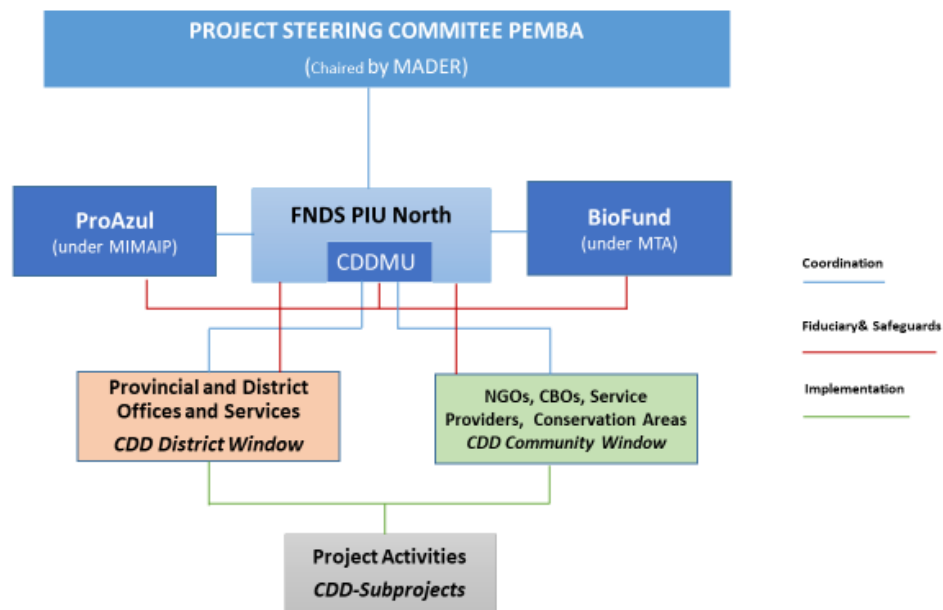
NGOs, CBOs, and SP hired under the project will establish their duty stations in the project area. A detailed institutional mapping has been carried out to facilitate partner identification.

5. **The SPAE and SPA will be responsible for providing implementation support and monitoring of project activities under Components 1 and 2.** SPAE will provide technical guidance to the provincial PIU offices.

6. **A PSC will meet once a year in Cabo Delgado, and be responsible for i) providing overall policy guidance and decision making on all issues related to the project, ii) facilitate coordination among relevant sectors, agencies, and partners, iii) reviewing and approving annual work and expenditure plans submitted by PIU coordinator, iv) ensure project alignment with other Government Programs and provide strategic direction.** As such, the PSC will ensure there is adequate coordination between the main PIU and the line Ministries. The PSC will be chaired by MADER and composed of representatives of ADIN, FNDS, BIOFUND, ProAzul, national directorates, the private sector, and civil society organizations. National directorate representatives will be determined by the respective ministries, including MADER, MTA, MIMAIP, MOPH. Independent observers from the private sector and civil society will also be members of the PSC.

7. **At the provincial level, two satellite PIU offices will be established in Niassa and Nampula.** These PIUs offices will report to the project coordinator based in the Pemba office. They will coordinate the work with the provincial directorates and services and will coordinate the implementation of activities at the district level with the SDAE, SPA and SPAE at the provincial level. At this level, activities will be implemented by PIU technicians, by extension workers who will be trained by the project and NGO, CBO and SP. Figure 2.1 provides a visual description of the project's institutional arrangements.

Figure 2.1. Institutional Arrangements







8. A **PIM** will be prepared covering general purpose, project history, objectives, components, implementation timeline, institutional arrangements, landscape overview, beneficiaries and project locations description, budget, accounting policies, accounting and financial reporting system, administrative procedures (operating, administrative and financial, procurement, M&E, management of fixed assets, safeguards procedures and tools). The CDDMU will produce a detailed operations manual that will be also part of the PIM. FNDS and ProAzul will prepare an implementation manual for the SECF Grants and the Mais Peixe Sustentável Matching Grants , which will be annexd to the PIM.

### Financial Management

9. **Overall FM assessment.** An FM assessment was undertaken to evaluate the adequacy of the proposed project financial management arrangements. The assessment was carried out in accordance with the Directives and Policy for IPF and the guidance on FM in World Bank IPF Operations issued on February 28, 2017. The FNDS, ProAzul and BIOFUND will have overall fiduciary responsibility for implementation of this proposed project. **The overall FM was assessed to be adequate**, and the risk rating was assessed as Substantial due to country fiduciary risk, capacity issues in the country, and the increased number of World Bank-financed operations to be implemented by the three agencies. The agreed FM arrangements are adequate to provide, with reasonable assurance, accurate and timely information on the status of the proposed project, if the following FM actions are implemented successfully: (i) develop and adopt the PIM including the section of the FM procedures; (ii) recruitment of additional three accountant for FNDS Financial department; (iii) completion of the implementation of accounting package at FNDS; (iv) strengthen the internal audit at FNDS by recruiting additional two auditors. The World Bank will closely monitor with the implementation of the action plan. Table 2.1 below describes in detail the FM Risk assessment and mitigation measures.

**Table 2.1 FM Risk assessment and mitigation measures**

Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
<b>Inherent Risk:</b>				
<b>Country level:</b> Shortage of human resources, limited capacities for key FM functions, and overall weak public finance management control environment may impact negatively the implementation of the proposed project expenditures.	H	The Government is committed to implement further reforms of the country's PFMs with support from the Bank and other development partners.  The World Bank has a number of initiatives and projects under preparation that will strengthen the FM systems.	No	S



Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
<b>Entity level:</b> The three agencies has experience in handling FM matters of World Bank-financed project, however the fact that FNDS is handling several projects and ProAzul will have an additional operation poses a risk as this could jeopardize its ability to perform well for all projects	S	The financial staff of the three agencies has experience in handling World Bank-financed operations. The FNDS FM capacity will be strengthened by recruitment of additional three accountants and the FNDS internal audit unit will be also strengthened by recruitment of additional two auditors	No	S
<b>Project level:</b> The project will finance some activities through CDD approach and provide small grant and there is risk that funds may not reach the right beneficiaries and not be accounted for properly.  Diluted community ownership may affect the sustainability of investments.	H	The PIM will include document the implementation arrangements of the project.  A CDD projects and small grants manual will be produced.  The FNDS and ProAzul have experience in handling similar activities  Mandated institutional responsibilities for creation and maintenance of assets.	No	S
<b>Control Risk:</b>				
<b>Budgeting:</b> FNDS, Biofund and ProAzul may not be able to produce realistic and comprehensive budget due capacity constraint and nature of the project	S	The PIM including FM procedures will be developed. Core staff involved in the budget preparation will be trained. Participatory governance should be applied.  The World Bank will review the draft budget as well the IFR and provide comments.	No	S
<b>Accounting:</b> Project funds, expenditures, and resources are not properly recorded since FNDS,	S	FNDS, Biofund and ProAzul will make use of the automated accounting	No	S





Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
<p>Biofund and ProAzul are accounting for other projects and may be confused in handling record of the project transactions</p> <p>Capacity constraints in writing books of accounts at community level.</p> <p>Difficulties in compiling accounts from large numbers of community groups</p>		<p>package to account for project funds, expenditures and resources, which is currently in use by the ongoing operation. In so doing the accounting packages will be customized for separately record of project transactions and production of financial reports. FNDS capacity will be strengthened by appointment of additional project accountants.</p> <p>Simplified accounting records and financial reports should be put in place</p> <p>Clear identification of the reporting chain and definition of the oversight roles and responsibilities at multiple levels should be put in place and documented in the CDD manual</p>		
<p><b>Internal control:</b> Non-compliance with key project internal control procedures due to weak internal control environment and oversight mechanisms in the country.</p> <p>The project will finance activities to be implemented through CDD approach and small grants and there is risk of the beneficiaries not meeting the minimum criteria</p> <p>Large number of parties and transactions involved. Numerous small-value contracts.</p>	S	<p>The project will follow the procedures documented in the <i>Manual de Administração Financeira</i> (MAF), which has been designed to mitigate internal control risk, and those to be documented in the PIM. The PIM will include the process of approval of progress certificates and processing of payments.</p> <p>A CDD projects and small grants implementation manual will be prepared to guide its implementation.</p> <p>Regular supervision will be carried out by the World</p>	No	S



Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
		Bank.  The internal audit departments of both agencies will conduct internal audit. The Internal audit unit of FNDS will be strengthened by recruitment of additional two auditors		
<b>Funds flow:</b> Delays may occur in the flow of funds and affect implementation of the project as the project will finance activities to be implemented at provincial level may delay submission of vouchers for payments of providers of goods and services.  Communities in dispersed and remote locations.	S	The disbursement arrangements will be documented in the PIM.  The CDD projects and small grants document all relevant procedures for funds flow to the beneficiary communities.  Appropriate channeling of funds to beneficiary communities will be identified and documented in the CDD projects and small grant manual.	No	S
<b>Financial reporting:</b> all agencies may fail to produce timely the project financial reports due to nature and coverage of the project.  Large number of parties and transactions involved. Numerous small-value contracts.	H	The three agencies will use automated accounting software to account for project funds, expenditures and resources.  FNDS, ProAzul, and BIOFUND have experience in producing reports for project implemented at local level  The three implementing agencies will play the role of management oversight bodies	No	M



Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
<b>Auditing:</b> Delays in submission of audit reports and delays in implementing the recommendations of the Management Letter.	S	<p>The three agencies have been submitting audit reports of ongoing project on time. The World Bank will monitor audit submission compliance and ensure implementation of Management Letter recommendations.</p> <p>Draft Audit TOR, including auditing CDD activities and small grants will be reviewed by the World Bank and discussed with The Administrative Tribunal. The TOR will emphasize the needs for physical verification. The component of BIOFUND will be audited by private audit firm.</p>	No	S
<b>Governance and Accountability:</b> Possibility of corrupt practices including bribes, abuse of administrative and political positions, mis-procurement and misuse of funds and so on, are a critical issue.	H	<p>Robust FM arrangements (including a comprehensive internal and external audit of the project operations, World Bank FM supervision including review of transactions and asset verification) designed to mitigate the fiduciary risks in addition to agencies overall internal control systems.</p> <p>Establishment/strengthening of citizen engagements feedback loops, including beneficiary feedback. To be developed in PIM</p> <p>Clear protocol for sanctions or remedies for misuse of project funds should be determined and well publicized</p>	No	S

Risk factors/Description of Risk	Risk Rating	Risk Mitigating Measures Incorporated into the Project Design	Conditions of Negotiations, Board or Effectiveness (Yes or No)	Residual Risk Rating
<b>OVERALL FM RISK</b>	S			S

Note: H = High, S = Substantial;

**Table 2.2. FM action plan.**

11. To mitigate FM risks, the following measures **should be taken**.

No.	Action	Responsibility	Completion date
1	Complete the implementation of accounting software and have it full operational	FNDS	31 December 2021
2	Develop and adopt the Project Implementation Manual including FM procedures	FNDS, ProAzul and BIOFUND	No later than 30 days after effectiveness
3	Develop and adopt the CDD projects and small grants manual	FNDS ProAzul, and BIOFUND	Condition of disbursement for CDD project and small grants
4	Preparation of Audit TOR	FNDS, ProAzul and BIOFUND	Within one month after effectiveness
5	Customize the accounting packages to maintain separate records and ledge accounts for the proposed project.	FNDS ProAzul, BIOFUND	Within two months after effectiveness
6	Recruitment of additional three accountants for FNDS	FNDS	Within three months after effectiveness
7	Recruitment of two additional auditors	FNDS	Within three months after effectiveness

## FM arrangements

12. **Budgeting.** Budget preparation and monitoring budget execution will follow national procedures and those to be documented in the PIM and in the CDD projects and small grant manual. The three agencies will prepare annual budgets based on the annual work plans and the approved procurement plans. It is expected that all agencies will prepare annual budgets that cover activities proposed to be carried out in each FY, applying participatory budgeting approach for activities to be implemented through CDD approach and small grants. Each entity will be responsible for producing variance analysis reports comparing planned with actual expenditures on a quarterly basis. These quarterly variance analysis reports will be part of the IFRs that will be submitted to the World Bank on quarterly basis.

13. **Staffing.** The FNDS, ProaAzul and BIOFUND will be responsible for fiduciary aspects of the project. The three agencies have finance staff with acceptable skills and experiences to handle FM and Disbursement matters of the World Bank-financed operations. However, the FNDS FM capacity needs to be strengthened by recruitment of additional three accountants to ensure adequate FM staffing in the increased number of World Bank-financed operations. BIOFUND FM capacity will be reinforced by the recruitment of one additional financial assistant and one accountant.



14. **Internal control.** Internal controls system and procedures of the project will be based on national procedures, defined in the MAF and the PIM. In addition, the three agencies will develop and adopt a specific manual for CDD project and small grants covering selection criteria, funds flow for the beneficiaries, maintenance of simplified accounting records and reporting, governance and monitoring mechanism. FNDS and ProAZul have internal audit units and these should include in their annual plans audit of the project operations. However, the FNDS internal audit unit capacity needs to be strengthened by recruitment of additional two auditors. The project may also be subject to the review of the General Inspectorate of Finance (*Inspecção Geral das Finanças* [IGF]) based at the Ministry of Economy and Finance. The World Bank will also conduct regular supervision through desk review and field visits (that include expenditures and asset reviews) to ensure that the implementing agencies are maintaining adequate systems of internal controls and key procedures are complied with. BIOFUND's Oversight Council (*Conselho Fiscal*) will include the MozNorte Project in its annual assessment of the foundation's accounts and performance.

15. **Accounting.** The three implementing agencies will account for all project funds, expenditures, and resources using the existing accounting packages, which are adequate as it can produce reliable financial reports required to monitor and manage effectively the progress of the project and being used by other World Bank-financed operations. The accounting packages will be customized to maintain separate records and ledger accounts for the proposed project and allow preparation of project specific financial reports. However, FNDS should complete the implementation of the accounting packages and have it fully operational by the end of June 2021.

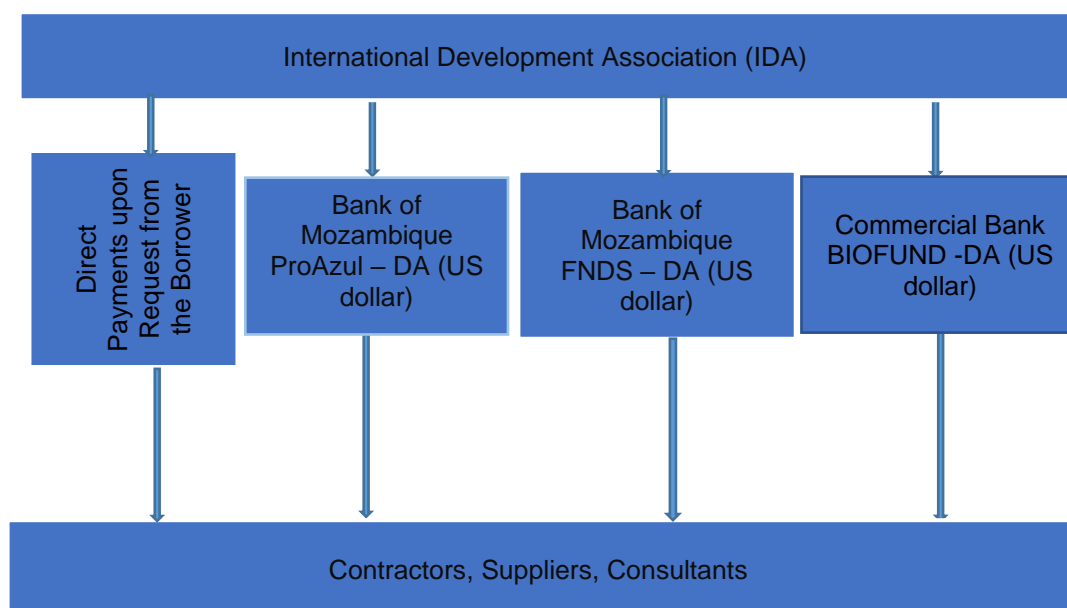
16. **Financial Reporting.** The three agencies are producing acceptable quarterly IFR for the ongoing operations. Each implementing agency will prepare separate quarterly IFRs for the project in form and content satisfactory to the World Bank, which will be submitted to the World Bank within 45 days after the end of the quarter to which they relate. These reports will cover all activities of the project including the CDD projects and small grants. The formats will be similar to those in use currently for ongoing projects. At the end of each FY, the agencies will also produce separate annual project financial statements (PFS) in accordance Financial Reporting under Cash Basis of Accounting. In addition, the PFS's components will be outlined in the TOR for audit of this proposed project.

## **Disbursement**

17. **Funds Flow.** Two Designated Accounts (DAs) in US dollars will be opened at the Bank of Mozambique (Central Bank) to receive funds from IDA and to be managed by FNDS and ProAZul. A third DA will be opened at commercial bank acceptable to Bank and to be managed by BIOFUND. Payments of eligible project expenditures will be made from the DAs to contractors, suppliers, consultants and small grants. All payments to local suppliers and consultants will be made strictly in local currency in compliance with Mozambique exchange control rules and regulations. The figure 2.2 shows funds flow mechanism for the project activities.



Figure 2.2. Funds Flow Mechanism for Project Activities



18. **Disbursement arrangements.** Disbursements of IDA funds will be done on a transaction basis. An initial advance representing a six-month expenditure forecast will be made into each Designated Accounts upon credit effectiveness.

19. **The option of disbursing the IDA funds through direct payment, reimbursement, and special commitment will also available.** To facilitate the payments of contractors, suppliers and consultants a lower minimum threshold for the use of direct payment and reimbursement methods of disbursement will be applied for this operation. The World Bank will issue the Disbursement Letter and Financial Information Letter which will specify the additional instructions for withdrawal of the proceeds of the IPF.

20. **Auditing.** The Administrative Tribunal (the country's supreme audit institution) is mandated to audit all Government funds, including donors-financed projects. As such, the PFS of the components to be implemented by FNDS and ProAzul will be audited by the Tribunal in accordance with International Standards of Supreme Audit Institutions (ISSAIs) issued by INTOSAI. While the PFS of the component to be implemented by BioFund will be audited by audit private firm acceptable to the World Bank in accordance with International Standards on Auditing as issued by the IAASB within IFAC. The TOR for audit will explicitly requires the auditors to conduct physical verification and auditing matching grants activities at the two implementing agencies. These ToRs will be reviewed by the Bank FMS and discussed with The Administrative Tribunal within one month after the project effectiveness. Beneficiaries will apply their own procedures including audits. The audit report together with Management Letter will be submitted to the Bank within six months after the financial year-end.

21. **Implementation support plan.** Based on the current overall FM risk of this operation, the project will be supervised twice a year. In addition to desk-based reviews, the FM will perform field visit to ensure



that Project's FM arrangements operate as intended. The World Bank will provide remote support to the project through internet solutions and phone calls during this time of COVID-19 pandemic.

## **Procurement**

22. **Procurement Procedures:** Procurement activities under the proposed project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated November 2020, and the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.

23. **Procurement Implementation Arrangements:** Procurement planning, procurement processing, contract management and the related decision-making authority under the proposed project will be carried out by FNDS, BIOFUND and ProAzul under MADER and MIMAIP respectively.

24. **National procurement procedures.** National open competitive procurement procedures may be used while approaching the national market. National open competitive procurement will observe the requirements stipulated in the Procurement Regulations on National Procurement Procedures. Other national procurement arrangements (other than national open competitive procurement), which may be applied by the borrower (such as limited/restricted competitive bidding, request for quotations/shopping, and direct selection), shall be consistent with the World Bank's Core Procurement Principles and ensure that the World Bank's Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply.

25. However, the request for bids/request for proposals document shall require that bidders/proposers submitting bids/proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights, and that the procurement documents include provisions, as agreed with the World Bank, intended to adequately mitigate against environmental, social (including SEA and GBV), and health and safety risks and impacts.

26. **Procurement templates.** The World Bank's Standard Procurement Documents (SPDs) shall be used for procurement of goods, works, and non-consulting services under International Competitive Procurement. National bidding documents may be used under National Procurement Procedures subject to the exceptions stipulated in the textual part of the Procurement Plan. Similarly, selection of consultant firms shall use the World Bank's SPDs, in line with procedures described in the Procurement Regulations.

27. **Procurement oversight by the World Bank.** The Bank shall prior review contracts as provided for in the procurement plan. Contracts below the prior-review thresholds shall be subject to post review according to procedures outlined in World Bank Procurement Regulations on an annual basis by the World Bank or by consultants hired by the World Bank. Also, the World Bank Procurement Specialist will regularly participate in implementation support missions to assist in monitoring procurement procedures and plans.



28. **Frequency of procurement supervision.** In addition to the prior review supervision to be carried out from World Bank offices, the capacity assessment of the implementing agencies recommends one supervision mission every 12 months to visit the field to carry out post review of procurement actions.
29. **Operating costs.** These items will be procured using the borrower's national procurement and administrative procedures acceptable to the World Bank, including selection of project implementation support personnel.
30. **Procurement Strategy for Development (PPSD).** The Borrower prepared the PPSD, which sets out market approaches and selection methods to be followed during project implementation of the project. The PPSD identifies optimum procurement strategies on how fit-for-purpose procurement of activities will support project operations for the achievement of project development objectives and deliver Value for Money (VfM). Based on the PPSD findings, the Procurement Plan (PP) for the first 18 months was prepared, setting the selection methods to be used by the Borrower in the procurement of goods, works, non-consulting services, and consulting services under the project. The Procurement Plan will be updated at least every 12 months, or as required, to reflect the actual project implementation needs. Each update shall require World Bank approval and will be publicly disclosed in accordance with the World Bank Access to Information policy 2010.
31. **Goods, services, and works were packaged economically to attract local and foreign bidders who are qualified and can offer good prices and complete contracts within stipulated timeframe resulting into value for money.** Packaging for procurement was decided to encourage adequate participation and is based on two principal forms of procurement packaging, (i) the grouping (or bulking) of procurement requirements within a procurement category for the purpose of acquiring them under a single contract, and (ii) the division of one requirement into multiple lots, where bidders can submit bids for one, several or all lots (as would be stipulated in the procurement documents), and where a contract could be awarded for each lot.
32. **The following aspects were taken into account when considering procurement packaging:** (i) The likelihood of local suppliers being able to fulfill the requirements, and if the packaging would limit their participation, (ii) If the group of requirements are needed (or can be received) simultaneously or are there different delivery dates between requirements. Unless the selected supplier can deliver at different intervals, receiving all the goods at one time could result in a potential logistical problem; therefore, under these circumstances it may be preferable not to package the various requirements, (iii) The availability of several suppliers that can provide a combination of procurement categories as may be required, and (iv) The Implementing Agency capacity to coordinate several suppliers. If the Implementing Agency's capacity is limited, this may create a preference for packaging to reduce the number of suppliers that the PIU would have to coordinate.
33. **Procurement Approaches for the required goods, works and services under the proposed Project:** Based on the project requirements, technical solutions and supply base the procurement strategy for the proposed Project is as follows:
34. **Works:** Most envisaged works are not complex and there several local contractors that can adequately execute the contracts and found to be sufficiently responsive according to the market analysis.





As such, National market approach, request for bids, single stage bidding will be used. Such small works include the construction of warehouses, Spot Repairs or rural roads and bridges.

35. **Goods and Non-Consulting services.** Most of goods have been packaged into National market approach, request for bids, single stage bidding, including, acquisition of three patrol vessels, supply of vehicles, supply of agriculture kits and production and planting of mangrove seedlings. Other items such as office equipment and furniture for the PIU, will be packaged into limited market approach, request for quotations.

36. **Consulting Services.** The consulting assignments are of relatively low complexity including creation and promotion of savings and revolving credit groups, Implementation of co-management initiatives in Lake Niassa.

37. **The procurement capacity assessment:** The FNDS, ProAzul and BIOFUND procurement unities are currently implementing projects financed by the Bank, therefore are familiar with the Bank procurement procedures including the knowledge of the World Bank's Procurement Regulation. The units are well equipped with office space and all the means to perform the work of the ongoing portfolio satisfactorily. During appraisal, avirtual procurement capacity assessment was carried out to determine whether FNDS, ProAzul and BIOFUND have acceptable procurement arrangements and capacity to implement the ongoing and planned Bank-financed operations. The assessment found that the FNDS team is composed by four procurement specialists supporting all projects (active and under preparation), and who are asked to focus on tasks depending on FNDS priorities and the perceived workload of each specialist at the moment. All procurement specialists are working with all the projects. Two procurement specialists are under selection process to enhance the capacity of the unit; the ProAzul team is composed by one specialist and one procurement assistant and considering the number of MPS operations and the daily procurement workload of ProAzul, one more procurement assistant will be hired using the project proceeds; and the BIOFUND team is currently composed by one procurement specialist and one additional procurement specialist in the process of being hired (through separate source of funding).

**Table 2.3: Procurement risk assessment and mitigation action plan**

No.	Risk	Risk Type	Mitigation Measure	Time Frame	Responsible Agency
2	Poor use of the STEP. Many activities flagged as delayed or pending implementation.	Substantial	Ensure that STEP is properly handled, uploading the required documentation once the stages of the processes are completed.	During project implementation	FNDS, BIOFUND and ProAzul
4	Poor record management	Substantial	FNDS, Biofund and ProAzul will put in place an effective and secure record management system	During project implementation	FNDS, Biofund and ProAzul
5	Limited capacity of the market and supply chain to meet the	Substantial	FNDS, Biofund and ProAzul will apply COVID-19	Throughout project	FNDS, Biofund and



No.	Risk	Risk Type	Mitigation Measure	Time Frame	Responsible Agency
	demand, due to the global nature of COVID-19 pandemic.		flexibilities in the bidding process in accordance with emergency operations norms granted by SIP to mitigate the impact of the COVID-19 pandemic including the use of direct contracting where appropriate.	implementation	ProAzul
6	Challenges of bids submission due to COVID-19 movement restrictions imposed by many countries worldwide.	Substantial	FNDS, Biofund and ProAzul project implementation teams will closely monitor country restrictions, and promptly propose more efficient procurement approaches and methods based on flexibilities provided for in the Procurement Regulations and flexibilities granted by SIP to mitigate the impact of the COVID 19 pandemic.	Throughout project implementation	FNDS, Biofund and ProAzul

38. **The risk rating for procurement** in view of above for both FNDS, BIOFUND and ProAzul is: Substantial.

39. **Filing and record-keeping.** The Procurement Manual (part of the PIM) will set out the detailed processes for maintaining and providing readily available access to project procurement records, in compliance with the FA.

40. **Approach to market.** Based on the size of the contracts under this project, open international bidding will be followed; however, generally, the thresholds shown in table C will be used for open national/ international and Request for Quotation bidding under this project.

**Table 2.4: Thresholds for Procurement Approaches and Methods (US\$, millions)**

Category	Works			Goods, Information Technology, and Non-Consulting Services			Shortlist of National Consultants	
Market Approach and Methods	Open International ≥	Open National <	Request for Quotation ≤	Open International ≥	Open National <	Request for Quotation ≤	Consulting Services ≤	Engineering and Construction Supervision ≤
Mozambique	15	15	0.2	3	3	0.1	0.3	0.3

41. **Procurement plan.** The Borrowers has prepared a Procurement Plans for the first 18 months, based on the findings and recommendations of the PPSD. The Procurement Plan is subject to public



disclosure and will be updated on an annual basis or as needed. The updates or modifications of the Procurement Plans shall be subject to the World Bank's prior review and 'no objection'. The World Bank shall arrange for the publication of the Procurement Plan and any updates on the World Bank's external website directly from Systematic Tracking of Exchanges in Procurement (STEP).

42. **Review by the World Bank of procurement decisions.** The table below indicates the contract thresholds that require prior review by the World Bank. All activities estimated to cost below these amounts shall be treated as post review and will be reviewed by the World Bank during the Implementation Support Missions under a Post Procurement Review exercise. Direct Contracting/Single Source will be subject to prior review only above the amounts given in the table. The World Bank may, from time to time, review the amounts based on the performance of the implementing agencies.

**Table 2.5: Thresholds for Procurement prior review (US\$)**

Procurement Type	Prior Review (US\$)
Works	10,000,000
Goods and non-consulting services	2,000,000
Consultants (Firms)	1,000,000
Individual consultants	300,000

43. **Monitoring by STEP.** STEP will be used to prepare, clear, and update procurement plans and conduct all procurement transactions for the project. Through the mandatory use of STEP by the FNDS, BIOFUND and ProAzul, the World Bank will be able to consolidate procurement/contract data for monitoring and tracking of all procurement transactions. Using STEP, comprehensive information of all prior and post review contracts for goods, works, technical services, and consultants' services awarded under the whole project will be available automatically and systematically on a real-time basis whenever required, including, but not limited to: (i) the reference number as indicated in the Procurement Plan and a brief description of the contract; (ii) the estimated cost; (iii) the procurement method; (iv) timelines of the bidding process, (v) the number of participated bidders; (vi) names of rejected bidders and reasons for rejection; (vii) the date of contract award; (viii) the name of the awarded supplier, contractor, or consultant; (ix) the final contract value; (x) procurement complaints and (xi) the contractual implementation period.

44. **Publication of Procurement Information.** The project will follow the World Bank's policies on publication of procurement information that are outlined in the World Bank's Procurement Regulations.

45. **Training, Workshops, Study Tours, and Conferences.** Training activities would comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring consultants for developing training materials and conducting training. All training and workshop activities (other than consulting services) would be carried out based on approved Annual Work Plans/Training Plans that would identify the general framework of training activities for the year, including (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the institutions which would conduct the training and reason for selection of this particular institution; (iv) the justification for the



training, focusing on how it would lead to effective performance and implementation of the project; (v) the duration of the proposed training; and (vi) the cost estimate of the training. Report by the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator and will be kept as parts of the records, and will be shared with the World Bank if required.

46. **Training Plan.** A detailed plan of the training/workshop describing the nature of the training/workshop, number of trainees/participants, duration, staff months, timing and estimated cost will be submitted to IDA for review and approval before initiating the process. The selection methods will derive from the activity requirement, schedule and circumstance. After the training, the beneficiaries will be requested to submit a brief report indicating what skill has been acquired and how these skills will contribute to enhance their performance and to attain the project objective.

47. **Operational Costs.** Operational costs financed by the Project would be incremental expenses, including office supplies, operation and maintenance of vehicles, maintenance of equipment, communication, rental expenses, utilities, consumables, transport and accommodation, per diem, supervision, and salaries of locally contracted support staff. Such services' needs will be procured using the procurement procedures specified in the PIM accepted and approved by the World Bank.

48. **Procurement Manual.** Procurement arrangements, roles and responsibilities, methods and requirements for carrying out procurement under the proposed project shall be elaborated in the PIM.



### ANNEX 3: Project Area Maps

#### Provincial Landscapes

1. **Cabo Delgado is one of the richest areas of natural resources in the country, with natural gas reserves offshore, mineral reserves, high biodiversity and valuable conservation areas.** It is also the Northernmost province of Mozambique, located between the Tanzanian border and the Indian Ocean, and occupying an area of 82,625 km<sup>2</sup>. It houses the Quirimbas National Park (QNP), the second largest in Mozambique (ca. 9,100 km<sup>2</sup>), which is home to rich terrestrial and marine ecosystems, including woodlands, granite inselbergs, coastal forests, white beaches and coral reefs. Within this context, tourism holds significant potential for contributing to the provincial economy, thanks to the numerous islands located along the coast attracting international tourists because of the large diversity of unique marine life and coastal natural resources. Despite the significant potential of sustainably managed natural resources and tourism, however, Cabo Delgado is one of the poorest provinces in Mozambique and tourism in the region has drastically reduced in the past years due to the increasing fragility. The province hosts 2,320,261 inhabitants (in which 1,196,163 are women – 52 percent), mostly concentrated inland and in the southern districts and dependent on small-scale subsistence agriculture with low levels of productivity. Along the coast, people depend mostly on small-scale artisanal fisheries for food security and income generation, and demonstrated to be particularly vulnerable to climate change as the cyclone Kenneth hit in April 2019 and devastated homes, farmlands, livestock and fisheries in Ibo District and the Quirimbas islands. Poverty in the province is aggravated by the highest illiteracy rate in the country, limited access to public services and basic infrastructure, and a long history of economic marginalization and high unemployment rates. In addition, since October 2017, the province witnessed an increase in violent attacks to local communities, generating a climate of insecurity and distrust and forcing families to be displaced thus overstressing already feeble resilience capacities. Given that Cabo Delgado is the province mostly impacted by conflict, especially in its northern landscapes, activities will concentrate in the southern districts for viability reasons while also by generating livelihood opportunities and safety nets for the local population.

2. **Niassa has the largest forest surface area in Mozambique and it houses the largest protected area in the country.** The province of Niassa has a surface area of 129,056 km<sup>2</sup>, but is Mozambique's least densely populated province with a projected population of 1,810,794 of which 51 per cent are women. Most of this population live in the rural areas and are dependent on agriculture and other natural resources for energy, food security, and employment. It is one the poorest provinces of the country, with approximately 50 per cent of the population living in absolute poverty. At the same time, Niassa has a large endowment of forests, fertile soils, water and minerals. The national forestry inventory of 2018 indicates that Niassa has about 7.9 million hectares of forests dominated by miombo woodland mainly used for fuel wood and charcoal, since these fuels make up 85 percent of domestic energy use in the province. Natural forests also include a number of commercial species used for domestic use and export. Protected areas within Niassa include the Niassa National Reserve, which is Mozambique's largest CA, covering 42,000 km<sup>2</sup>. The Reserve has an immense variety of land animals, including lions, leopards, wild dogs and buffalos and is home to the majority of Mozambique's elephant population. The reserve is part of a TFCA with the Selous Game Reserve in Tanzania through the Selous-Niassa Wildlife Corridor.

3. The Niassa province is also home to Lake Niassa Partial Marine Reserve, which is the first freshwater lake under protection in Mozambique covering an area of 47,800 ha adjoined by a buffer zone



of another 89,000 ha. The lake's tropical waters and shores are home to significant and diverse marine life, bird populations, mammals and reptiles and is in the process of applying to become declared a RAMSAR site. While Lake Niassa (also known as Lake Malawi) receives significant flows of tourism on the Malawi side, the tourism potential on Mozambique side remains greatly untapped. The province is also endowed with fertile soils and abundant water resources, providing very high agricultural potential, despite the fact that the total area under cultivation is roughly five per cent of approximately eight million hectares of fertile arable land, run by smallholders, 31 percent of which are headed by women<sup>40</sup>. There are a few relatively large-scale commercial operators in the province, producing export crops, and there is considerable scope of enhancing agricultural yields through better technologies and the use of agroforestry, taking advantage of the recent establishment of the Agroforestry Training Centre in Niassa. The province also has relatively strong ecotourism potential, due to its many sites with high biodiversity value and the beautiful beaches of Lake Niassa. As such, the province holds potential for developing a more productive yet sustainable use of its natural resources, at the same time enhancing livelihoods and protecting the environment. Given Niassa's significant forest cover and wildlife, priority will be given to forest and biodiversity-related activities. Conservation and tourism activities will focus on the Niassa National Park, while forest activities will focus around the Reserva Florestal Niassa. Aquaculture activities will be implemented in the water bodies, like Lake Niassa.

4. **Forest reserves covers approximately 528,000 ha of forest in Mozambique in which 60 percent of the area is in Nampula.** The province covers an area of 79,010 km<sup>2</sup> and a population of 5,758,920, making it the most populous province in Mozambique (2017 census). The province is mainly agricultural, producing cotton, cashews, tobacco, minerals, among others, and making it the breadbasket of the northern provinces of Mozambique. In this province, poverty and malnutrition data were the worst compared to the rest of the country, while the number of IDPs were the highest. These data will be used to identify the priority districts to be targeted by the project. Activities will revolve around enhancing rural communities' connections to commercial agriculture supply chains and food security. Fisheries activities will be designed to target coastal communities, considering the importance of the sector for livelihoods of the many people living along the coast that constitutes the eastern boarder of the province. Some forestry activity will also be designed to support the five forest reserves present in Nampula.

### Geographic Prioritization

5. **An initial geographical prioritization exercise was carried out at the time of project identification (see Figure 3.1 below).** The exercise allowed to select specific areas with high poverty rates and vulnerability, significant potential for impact, and viability for implementation. It also enabled the matching of selected areas with the natural asset that has more socio-economic relevance in the landscape, so that activities may be designed to protect the selected natural asset, while contributing to releasing its potential of supporting local communities' development potential. Each of the provinces went through a specific prioritization exercise.

6. **Geographical prioritization methodology.** GIS-Based Multi-criteria Analysis (MCA) for critical district selection was employed. MCA is a procedure that typically multiplies conflicting criteria that are essential to be evaluated in decision-making. The principle of the MCA is to condense complex problems with multiple criteria into finest ranking of the best scenarios from which an option is selected – a district

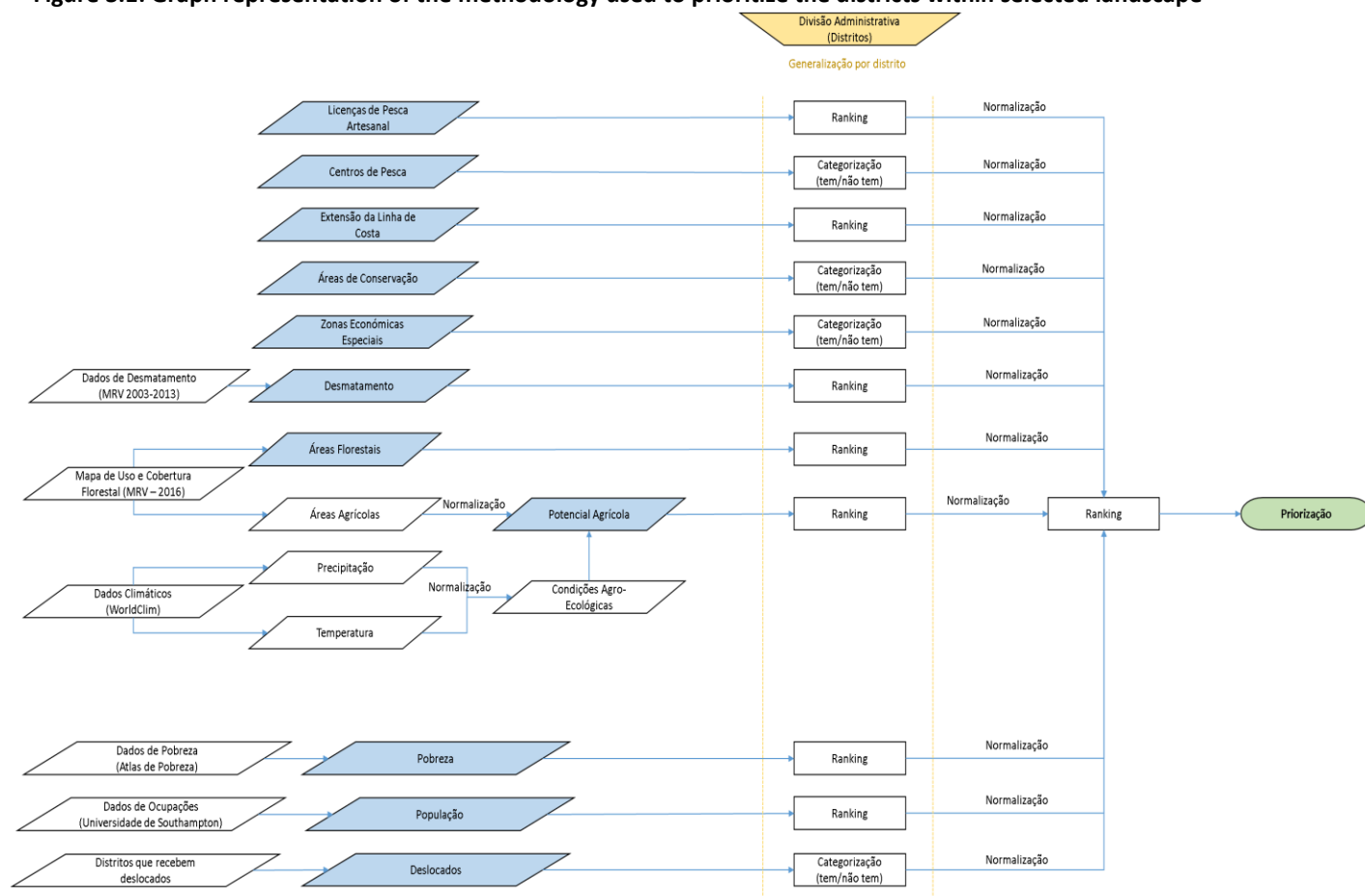
<sup>40</sup> <https://pubs.iied.org/pdfs/13569IIED.pdf>



in this case. District selection plays a vital role for environmental, social and economic activities aiming at best at achieving the proposed PDO of the project. Therefore, making good preparations and analysis on the factors used for the district selection was necessary. The aim of this MCA-based analysis was to make a preliminary selection of a set of most critical districts in which ground activities will be implemented within the three selected provinces of the Northern Mozambique.

7. **A set of ten influential factors and two constraint criteria were analyzed and overlaid to select the most critical districts.** GIS-based MCA includes two essential parts: factor criteria and constraint criteria. Each of the criteria appears as a map layer, for factor or as a constraint criterion. Factor maps are represented as spatial distributions to display the opportunity criteria and the quality of achieving an objective. Constraint maps are limitations or restrictions which prohibit certain elements to be considered in the analysis. The model was employed, using a combination of global and country-specific datasets, which can be categorized into socio-economic, technical, and environmental aiming all the factors at prioritizing activities related with improved agronomic practices, forest conservation, tourism, fisheries, among others. All the selected factors were normalized into categories that range from 1 (most critical – desired for project implementation) to 5 (less critical), prior to layers overlay. All the maps derived from the raw data were in Shapefile vector format and there was no need to convert to raster data to execute the MCA model as normalization/reclassification of the factors was at the district level. District selection was made based on the average score of all the factors within the province. Those with the lowest average were given preference. The ten factor criteria and the two constraint criteria taken into account on the analysis can be found on the flow chart below.

**Figure 3.1: Graph representation of the methodology used to prioritize the districts within selected landscape**



8. **Similar influential factors were employed for the three provinces.** However, in Cabo Delgado, due to the civil conflicts, all the severely impacted districts were excluded for the project and all the location of displaced populations as result of these armed attacks, were prioritized. Since the projects focus on integrated land management and sustainable livelihoods for increased resilience of vulnerable communities, all the urban areas were excluded, and only rural areas were accounted for during the analysis.

9. **Similar weights were employed for all influential factors in all the provinces.** With the intention to select a set of most critical districts for project implementation in the three provinces, all the selected factors were attributed the same weights (0.1 for Niassa and Cabo Delgado and 0.11 for Nampula). The variation of the weights among the three provinces was due to the number of factors employed on the MCA. Considering various factor criteria and given that similar weights were adopted at this stage, no Analytical Hierarchy Process (AHP) and Rank Order Methods (ROM) were used here for weight setting. However, as consultation with specialists still in process, these methodologies will be employed to set the weight and results might slightly change (selected districts).

10. **A total of 18 out of 55 districts were prioritized in the three Provinces.** Most of the districts located on the Northern area of Cabo Delgado were automatically excluded given the on-going armed



conflicts within the province that triggered population displacement. Most of the populations living at the most severely impacted districts in Cabo Delgado tends to migrate to Nampula and Niassa. All these displaced locations in Nampula and Niassa (receiving the flux from C. Delgado) were also prioritized among the 18 districts. Figure 3.1 depicts the initial geographical prioritization exercise to select project areas. In Niassa, forest cover and deforestation hotspots have been identified as priority areas to be targeted; in Nampula and Cabo Delgado, poverty and malnutrition data were the worst and have been used to identify the priority districts to be targeted by the project. Districts receiving the highest number of internal displaced people were also selected. CA and its buffer zones were also highlighted for prioritization despite the fact that Mecula and Mavago were not included on the preliminary list of the 18 districts. Fisheries and aquaculture were identified as priority in the coastal and in the lake areas.

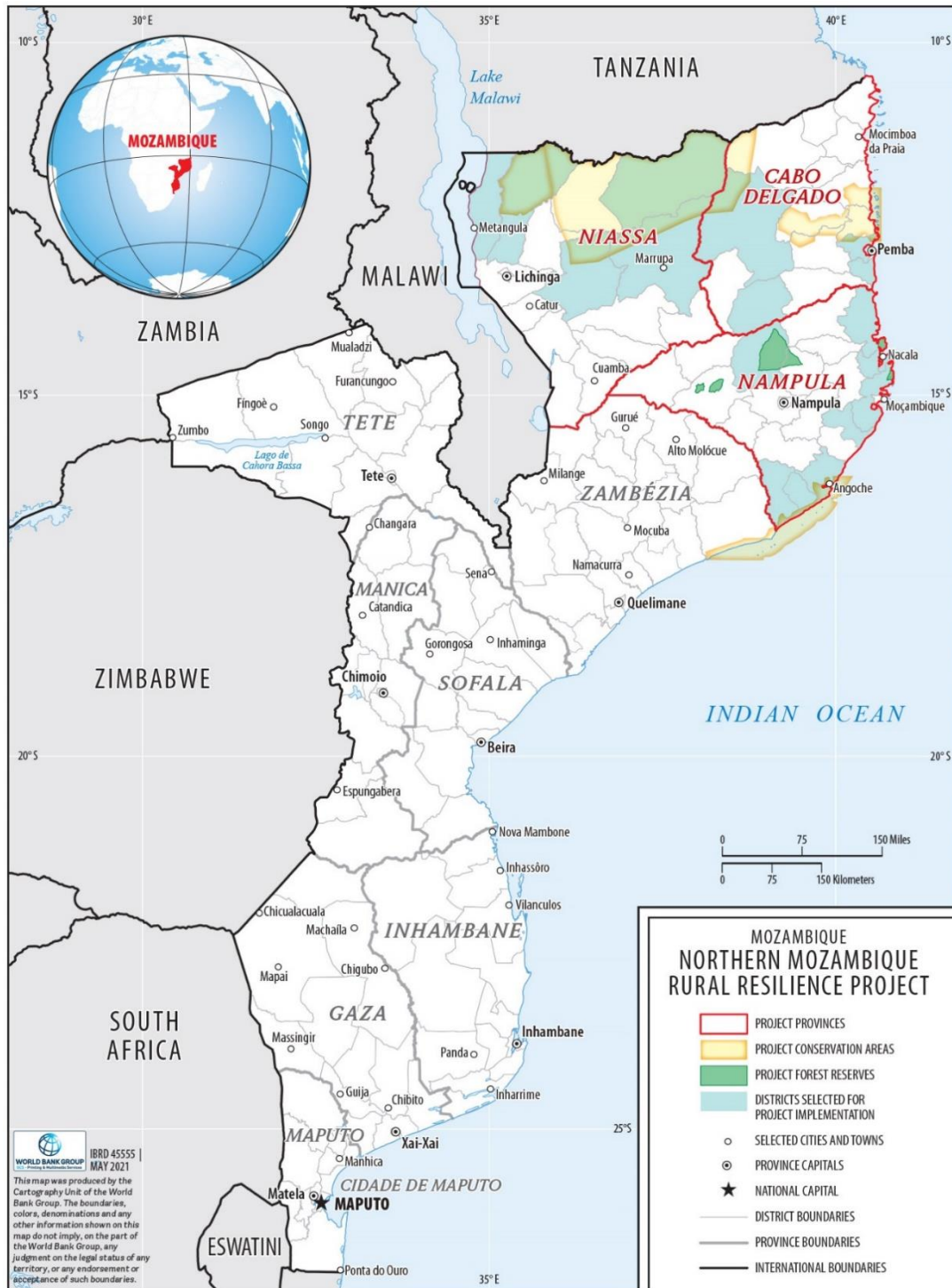
11. **Synergies with the SREP.** As per the table below, MozNorte priority districts and SREP priority districts do not overlap in most cases. Only in Mossuril, there will be agriculture activities being implemented by both projects, but the beneficiaries in this case are different (IDP for the MozNorte and PACES and MSMES for SREP). Additional information can be found in the table below, which describes which activity will be implemented in each district.

**Table 3.1: Synergies between SREP and MozNorte project**

Priority districts	MozNorte activities	SREP activities
<b>Niassa</b>		
Sanga	Environment (ANAC): support to the Chipanje Cheto Community Area	Agriculture
<b>Nampula</b>		
Mecuburi	Environment (DINAF)	Agriculture
Memba	Fisheries, Environment	Agriculture
Mossuril	Fisheries, Environment	Agriculture
Angoche	Environment (ANAC): activities relate to that the district is part of APAIPS (ANAC)	Fisheries
Larde	Environment (ANAC: activities relate to that the district is part of APAIPS (ANAC).	Fisheries
Moma	Environment (ANAC): activities relate to that the district is part of APAIPS (ANAC).	Fisheries



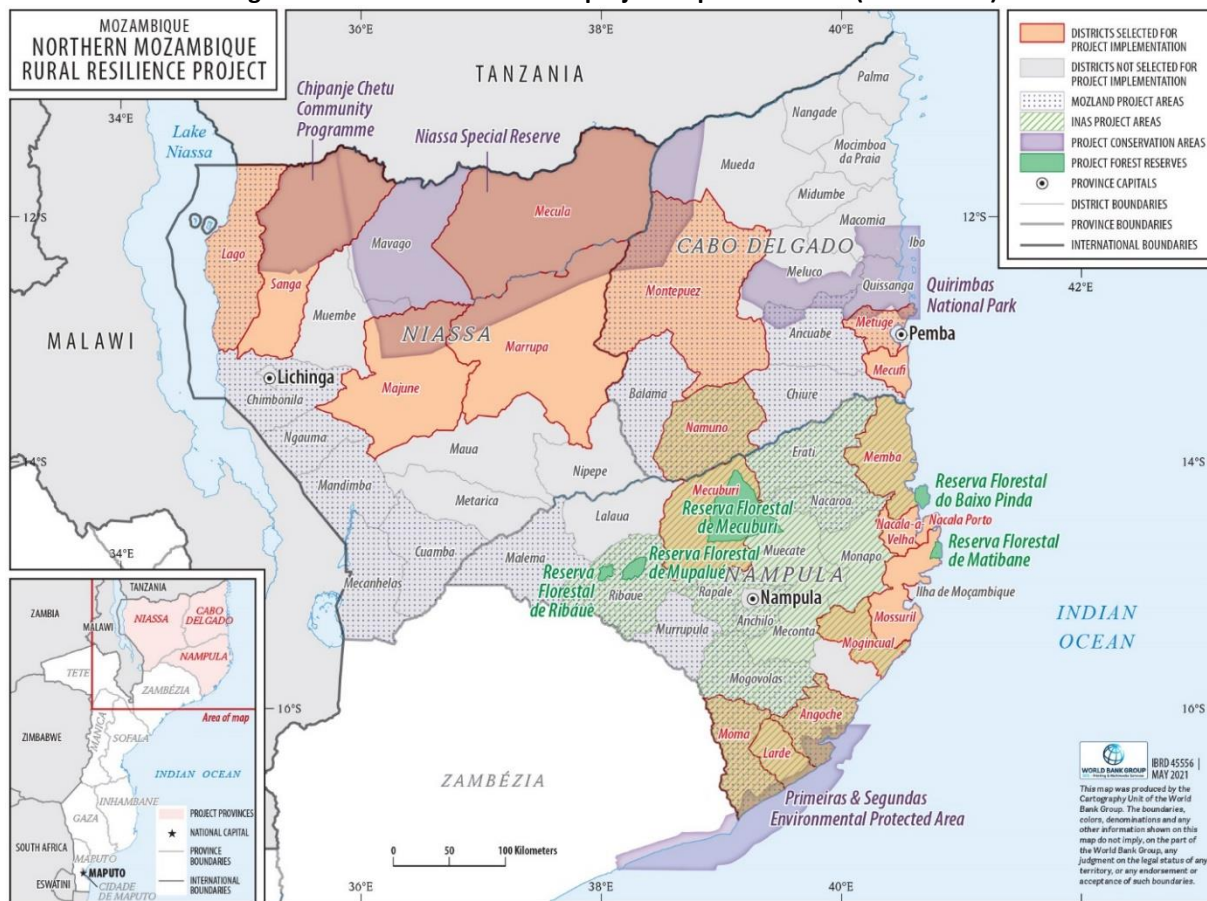
Figure 3.2 Provinces Where the Project Will Be Implemented (IBRD 45555)



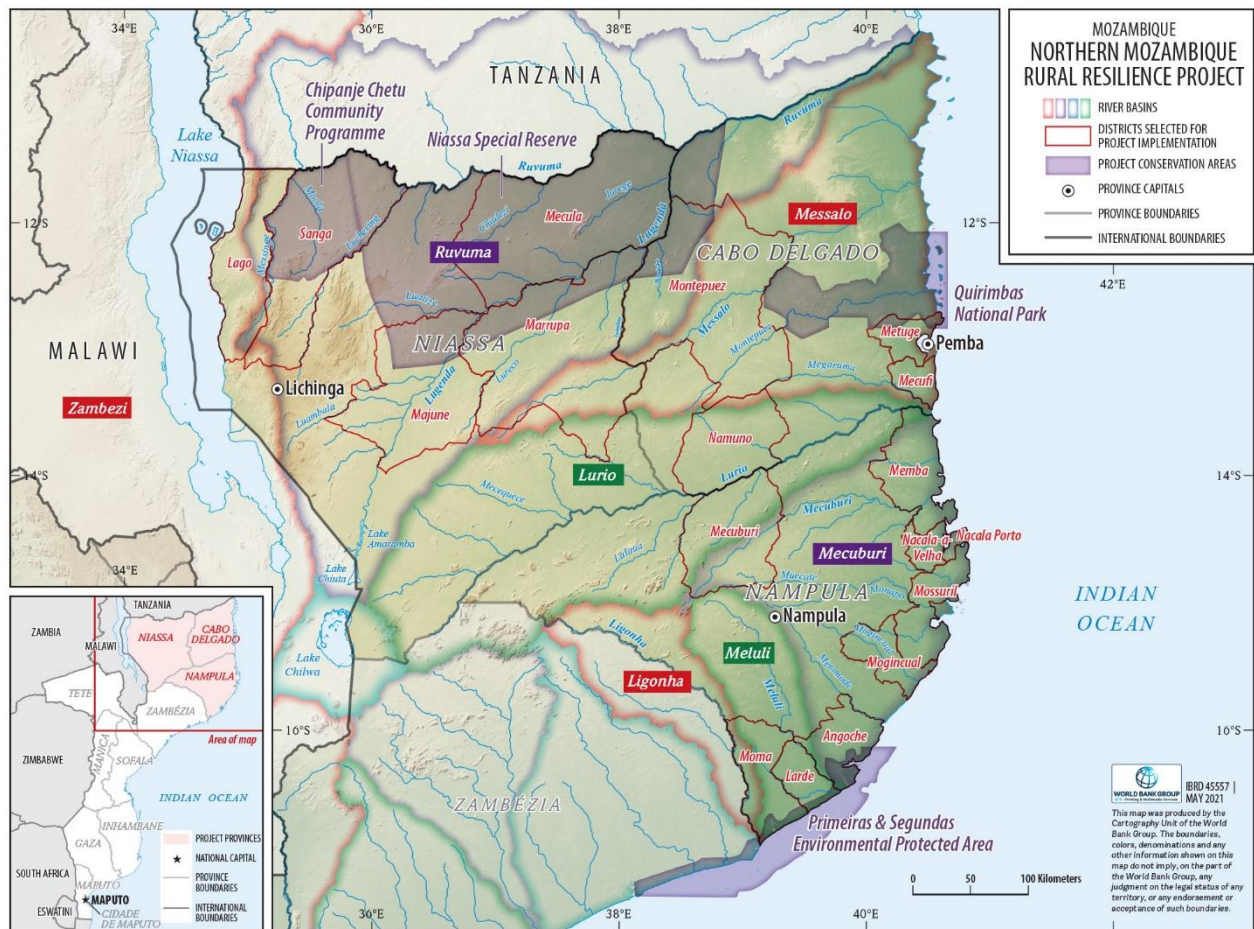
**Table 3.2 Provinces and Districts Where Project Will be Implemented by Activity**

Environment	
Cabo Delgado	Mecufi, Metuge e Montepuez
Nampula	Angoche, Larde, Mecuburi, Moma e Mussoril
Niassa	Marrupa, Mecula e Sanga
Agriculture	
Cabo Delgado	Montepuez e Namuno
Nampula	Mossuril
Niassa	Lago, Majune, Marrupa
Fisheries	
Cabo Delgado	Mecufi, Metuge
Nampula	Memba, Mussoril, Mogincual, Nacala, e Nacala a Velha
Niassa	Lago

**Figure 3.3. Districts selected for project implementation (IBRD 45556)**







[illegible]



## ANNEX 4: Gender Gap Analysis

1. **The project identifies several project-relevant gender gaps, actions and indicators to ensure that gaps are addressed, and results are measurable.** The gender gaps that this project aims to address have been identified using the overall framework of WBG's Gender Strategy 2016-2023; the Environment and Natural Resource and Blue Economy (ENB) Global Practice Follow Up Note for FYs 2019-2021; the comprehensive Gender Gap Analysis and Action Plan developed for the ILM portfolio in Mozambique<sup>41</sup>; MIMAIP's Gender Strategy and initial feedback from consultations done during the preparation of MADER's Gender Strategy, which is expected to be finalized by the time the project starts. The Project's gender responsive approach focuses on the following key project-related *gender gaps*, *actions* to address them, and *indicators* to monitor progress, as presented in the Gender Specific TOC depicted in Figure 4.1 and the following two result chains:

### **Results Chain 1: Women's limited access to financial support for basic and productive needs**

2. **Gap:** It is estimated that 79 percent of women in Mozambique have limited access to financial products and credit for productive and basic needs. Financial services, including credits, grants, matching grants etc., usually don't reach women as much as they reach men since outreach, communications and targeting towards women is not applied by the institutions or projects offering these services. Women in general also have less access to labor power than men, which can affect access to certain economic opportunities. As a result of the lack of targeted financing windows, women have less opportunities to invest in basic and productive assets that can help them, and their family reduce poverty.

3. **Actions:** The project will provide targeted financing from the CDD Fund for women's productive and basic needs, including to develop productive value chains. Given women's vulnerability in fragility situations and in general in Northern Mozambique, especially due to the lack of human endowments, priority under the first window will also be given to projects that aim to invest in gender-responsive investments that reduce the gender gap in human endowments and empowerment. Recognizing the potential for women's increased and diversified engagement in the fisheries sector to improve livelihoods, the project will also provide targeted matching grants to women-owned businesses in fisheries value chains under the *Mais Peixe* matching grant scheme.

4. **Indicators:** To measure progress on this, the project has a **PDO indicator** to ensure that 50 percent of beneficiaries that access financial support through the CDD Fund are women, **and an IR indicator** to ensure that 50 percent of business plans supported with matching grants from Mais Peixe are women-owned businesses.

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41 The Gender Gap Analysis and Action Plan resulted from a six-month research and consultative process involving key World Bank, government, civil society and partners. The exercise was based on a participatory approach aiming to also build the capacity of stakeholders involved through trainings and awareness-raising. It is available here: <http://documents1.worldbank.org/curated/en/481751590469652942/pdf/Gender-Responsive-Natural-Resource-and-Landscape-Management-A-Mozambique-Pilot-Program.pdf>





## **Results Chain 2: Women's limited participation in decision-making and their increased risk of GBV**

5. **Gap:** One of the main project-related gender gaps relates to women's limited participation in decision-making around livelihood and natural resource management choices both at community and household level. Overall, cultural norms limit women's participation in these processes, especially when related to access to economic opportunities or when financial decisions are made, including decisions related to the use of natural resources and planning processes related to income. Women's limited voice and agency is also linked to the fact that women are the prime victims of GBV – more than a third of women in Mozambique (37 percent) are survivors of domestic violence and 23 percent point to at least one reason that makes it acceptable for a husband to beat his wife (Demographic Health Survey of 2011). These deep-rooted power imbalances remain between men and women even in matrilinear societies, and legitimizes the subordination of women to men, promotes an ideology of male sexual entitlement, and mainly values women for their reproductive abilities.

6. **Action:** The Project will promote the use of the GALS methodology in selected households to address the intrahousehold relations that affect women's access to decision-making over resources and income. GALS is a facilitative household methodology aiming to empower households to identify and address intra-household gender power relations that limit socio-economic progression.<sup>42</sup> Evidence shows that households reached by GALS improve joint engagement in household and productive activities and reach improved livelihood outcomes, such as increasing productivity and household income, joint management of resources available to the household, joint or exclusive asset ownership among women, increase in women's participation in decision-making in matters in which they previously had no say, and reductions in GBV, among others. The GALS methodology is being implemented in other projects under the ILM Portfolio and other GoM projects, with proven results, including contributing to reducing GBV, and is a key tool under the GoM's approach<sup>43</sup> to reduce GBV risks. An important aspect of GALS is that it equally engages men and boys at addressing gender inequality at a household level. The indicator on number of households applying GALS will thus be a proxy of the project efforts to reduce GBV levels in target areas.

7. **Indicator:** To measure progress on this, the project has **an IR Indicator to ensure that 19,500 households receive and actively apply GALS**. GALS has an internal monitoring mechanism built in within the methodology, which means that GALS facilitators that train and coach households on the use of GALS will work closely with the beneficiaries to track impacts, including changed behaviours among men and women, improved and more equal division of household chores, the joint planning of household resources and women's perception regarding GBV. Households targeted with GALS graduate from the methodology once important visible behavioural changes have been attained over a period of eight-ten months of facilitation support.

8. **In addition to the barriers already identified, a comprehensive behavioral diagnosis has been conducted in selected districts as part of project preparation to deepen qualitative understanding on local challenges impeding women's participation in NRM.** The diagnosis has been conducted by Government, civil society, and academia, with the support of the World Bank. The diagnosis is analyzing social, psychological, and cultural factors to gender barriers, and will complement this with an analysis of structural and higher-level dynamics outside of the direct influence of specific individuals. The findings of

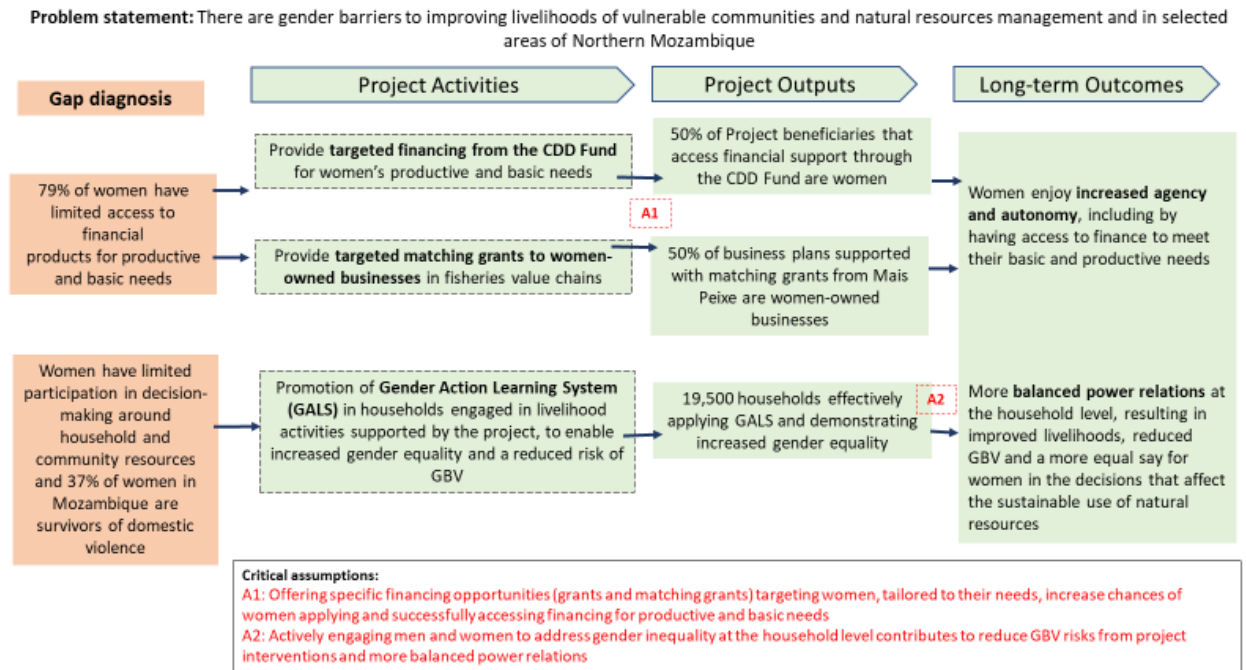
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<sup>43</sup> The MADER and FNDS Gender Strategies currently under revision and awaiting approval.



this behavioral diagnosis will be ready as the PIM is finalized and thus inform and improve the design and implementation of project activities to better respond to the specific needs of women.

Figure 4.1: Gender Specific Theory of Change







## ANNEX 5: Detailed Economic and Financial Analysis

### Background

1. The analysis considers the business-as-usual scenario, whereby farmers (crops, livestock), aquaculture and artisanal fishers are expected to continue producing with low technology and therefore low productivity levels. Their growth is limited by lack of access to both input (high quality seeds, fertilizers) markets and financing. With poor value chain linkages producers experience low yields, low prices for their outputs high post-harvest losses in the absence of necessary rural infrastructure.
2. The project promotes improved resource management not only for agricultural productivity and rural livelihoods but also for beneficiaries to become more resilient to shocks. Net benefits captured through this type of intervention accrue over many years and project benefits are also related to avoided future losses. The lack of cash and credit for working capital as well as for investments in the agriculture sector prevents producers from adopting new practices with such long-term benefits. The investment targeting Government owned protected areas requires public funds to ensure that private sector enterprises are managed responsibly such that the areas continue to provide necessary ecosystem services.

### Methodology

3. A cash flow cost-benefit model was used to assess the ex-ante efficiency of the project investment. Assumptions were collected to establish revenue and operating costs (for gross margin analyses and investment costs for net margin analyses) for the without-project and with-project situations for these entities as well as estimates for impact on tourism and GHG emissions. The revenue and cost assumptions for each entity are available in the full EFA report and model:
  - a. Crop production - per-hectare assumptions for low technology smallholders and more market oriented medium technology farmers in the vegetable and horticulture value chains (Tomato, lettuce, Maize, Sesame, Soy, Beans, Cassava, Onion, Potato, Maize seeds, and Rice) Source: SUSTENTA Project<sup>44</sup> and IRRIGA Project<sup>45</sup> EFA gross margin assumptions.
  - b. Livestock production - per-farm assumptions for: Free-range chickens. Sources: Gross margin assumptions from Government livestock experts.
  - c. Aquaculture production - per-farm assumptions for ponds and cages. Sources: Gross margin assumptions from SWIOFish<sup>46</sup> Project experts.
  - d. Fisheries - revenue and cost assumptions for artisanal fishery based on a value chain of one marine fisher and one processor/trader. Source: Mozambique value chain study (Sofala Bank).
  - e. Agriculture-related SMEs: per-entity revenue and cost assumptions for domestic ice production, fish feed production, fingerling production. Source, International Fund for Agricultural Development (IFAD) projects: Small-scale Aquaculture Production Project

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<sup>44</sup> P168940

<sup>45</sup> P164431

<sup>46</sup> P132123



(PRODAPE) and Inclusive Agri-food Value Chain Development Project (PROCAVA) EFA reports.

- f. Tourism - currently including incremental increase in tourist visits in Niassa National Reserve. Source: SREP Project<sup>47</sup> team experts and Mozbio2<sup>48</sup> EFA assumptions.
- g. Economic value of improved GHG based on CO2-equivalent estimates from the FAO's EX-ACT model.

4. Annual cash flows are established for each crop, livestock, aquaculture, fishery, and SME entity by also incorporating the irregular flows of cash in annual production systems. To ensure a consistent timeframe, the annual cash flows are developed for a 30-year period to align with the investment and capitalization periods used in the GHG analysis. This incorporates forest restoration and avoided deforestation. Some entity-level investment analyses are shown for shorter periods, such as 10 years, if more applicable to each enterprise. The financial discount rate is 20 percent as used in SUSTENTA and SREP analyses based on both long term 3-years and short term 1-year investments.

5. **Representative farm and enterprise models.** Several representative farm models are defined using the relevant mix of crops, livestock, and aquaculture. Other representative entities are defined for marine artisanal fisheries and SMEs. Financial analysis estimates incremental net benefits defined as the difference in annual cash flows between the with- and without-project situations. Incremental net benefits calculated as farm/entity-level returns exclude farmer's own labor and include home consumption of produce. Results are presented as annual margins or annualized margins when applicable. To the extent some farmers make on-farm investments ("asset generating" excluding grants covered by the project), the relevant representative farm models are analyzed for annual net operating profits including interest on working capital, and repayment of loans. Analyses of financial returns on entity-level investments indicate the profitability arising from the project, and therefore provide incentives to participate/adopt the proposed value chain initiatives.

6. Table 5.1 lists each of the representative models and the number of entities targeted by the project. According to the Results Framework it is assumed that 280 SECFs connect with an average 120 SFs. For this analysis it is assumed that 86 percent (240 SECFs) of these are crop farmers and 14 percent (40 SECFs) are chicken farmers. Additional beneficiaries include 200 aquaculture producers and 1,500 marine artisanal fishers and 360 are assumed to invest in improved ice production for reduced fishery post-harvest losses. A total of six enterprises are included using two representative investment examples. Additionally, the analysis includes a number of interventions based on the CDD projects that the project will finance, represented by investments in sustainable charcoal production and apiculture. Number of beneficiaries are estimated based on the number of hired staff or the size of the household. Valuation of tourism is included based on the number of visitors to Magoe National Park.

<sup>47</sup> P174002

<sup>48</sup> P166802



**Table 5.1: Number of Entities, Hectares and Beneficiaries by Representative Model.**

Representative Models		Entities	Hectares	Beneficiaries
1	SECF Cropping	240	2.400	1.248
2	Smallholder/SF Cropping	25.920	38.880	134.784
3	Market Oriented/PAC Cropping	2.880	7.200	14.976
4	Livestock Chicken Production. Some crops	4.840	7.260	25.168
7	Larger Aquaculture	20	0	104
8	Smaller Aquaculture	180	0	936
9	CDD - Apiculture	959		4.987
10	CDD - Charcoal	959		6.632
11	MSME-Fingerlings	4		32
12	MSME-Fishfeed	2		16
13	MSME-Ice	360		1.872
14	Artisanal Fishery	1.500		9.360
15	Tourism		4.047.000	1.300
16	Forestry		50.000	
<b>Total</b>		<b>76.864</b>	<b>4.932.740</b>	<b>404.215</b>

7. **Counterfactual and Project Impact.** For each of the representative farms and enterprise models, the following assumptions are used to describe their without-project (WO/P) and with-project (W/P) situations. The combinations of crops are meant to represent what is produced in the project area and not on every farm:

- a) **SECF Cropping (10 ha):** WO/P PACE farmers grow primarily maize and beans and have land at their disposal that they cannot afford to cultivate. W/P farmers are more market oriented and add horticulture maize, onion, potato, seed maize, and rice at higher gross margins.
- b) **Smallholder/SF Cropping (1.5 ha):** WO/P smallholder farmers grow maize, beans, sesame, soya, and some cassava and have land that they cannot afford to cultivate. W/P smallholder farmers produce more maize and less cassava and have less land that is left unproductive. W/P they can match the original gross margin levels for PACE.
- c) **Market Oriented/SF Cropping (2.5 ha):** WO/P market oriented/PAC farmers grow similar crops to the PACE farmers. W/P these farmers switch to more onion, potato, and seed maize.
- d) **Livestock Chicken Production. Some crops (1.5 ha):** Free range local breed chicken production. WO/P 10 chickens with 4 cycles per year. W/P 100 chickens with 4 cycles per year. With-project adds shelter and better feeding for higher productivity and lower mortality, and increased home consumption.
- e) **Larger Aquaculture (no crops):** WO/P larger producers have 10 500 m2 ponds or 125 m3 cages (80 percent expected to have ponds, 20 percent cages). W/P larger producers have twice as many ponds and cages.<sup>[2]</sup>
- f) **Smaller Aquaculture (no crops):** WO/P smaller producers have no aquaculture. W/P smaller producers have one 500 m2 pond or 125 m3 cage (80 percent expected to have ponds, 20 percent



cages).

- g) **Artisanal fishing value chain including one fisherman and one processor/trader.** WO/P post-harvest losses of 30 percent of catch before home consumption. W/P improvement reduces post-harvest losses to 15 percent.
- h) **Enterprise: Family business ice production.** W/P purchase 500-liter freeze
- i) **Enterprise: Fish feed production.** W/P construction of workshop and equipment. Employs seven persons.
- j) **Enterprise: Fingerling production.** W/P construction of building and equipment. Employs eight persons.
  - a. **CDD Apiculture** – CDD project of honey production. Employs ten persons.
  - b. **CDD Charcoal** – CDD project for biomass charcoal production. Employs ten persons.
  - c. **Tourist visits.** Mago National Park (3,558 km<sup>2</sup>).

8. **Gradual implementation and adoption rates.** A key feature of the methodology is that it includes the gradual build-up of both project investments (costs) and adoption of improved production systems (costs and benefits). This enables an analysis of potential delays in project implementation as well as lower adoption rate among producers and businesses. The project budget is allocated across the years based on the cost tables: 41 percent, 20 percent, 16 percent, 16 percent, and 7 percent of US\$150 million. A SUSTENTA baseline report (DIME 2019a) shows that over 70 percent of PACE candidates used improved seeds. For the current analysis it is assumed that this 70 percent adoption rate is achievable for targeted beneficiaries too - building up gradually with 20 percent per year.<sup>[3]</sup> The reasons for non-adoption are many and can include: lack of productive assets, lack of access to financing, poor access to markets, high risk perception of displacing current productive activities, long payback periods, and unclear land use rights.

9. **Resilience and uncertainty (based on SREP analysis).** increasing household income through improved productivity, livelihoods, and resource management builds resilience in the rural population. Economic hardships originate from shocks such as extreme weather events or local and global events. The Mozambique Risk Management and Resilience Program technical assessment report notes that long and severe droughts occur in four out of ten years, and floods occur every two or three years. Losses have been valued at between 2 percent and 9 percent of GDP. Also noted in the recent Rural Income Diagnostic regular losses range between 7.7 percent and 18 percent and further losses of around 20 percent of crops are also estimated to occur every 10 years. This has been incorporated in the model through a 0-18 percent loss in benefits every three years and 20 percent loss every ten years due to droughts, floods or disasters. Furthermore, in other years annual fluctuations of +/- 5 percent are included. A Monte Carlo simulation is run to estimate the expected project returns also indicating the standard deviation of the estimate.

10. **Aggregation to Project Level.** The results are aggregated to the project level based on how many farms and entities are targeted by the project (see Table 5.1) - while also taking the adoption rate into account. Key results presented include the net present value of incremental net benefits with the associated benefit cost ratio, economic rate of return on investment, and payback period.

11. **Economic analysis.** The economic analysis excludes all transfers and are therefore pre-financing and exclude considerations of farm/entity loans and repayments but include the on-farm and entity-level investments. The currency values are adjusted from the financial analysis according to economic



conversion factors and shadow prices to conduct an economic analysis that excludes taxes and subsidies. Most of the conversion factors are taken from the IRRIGA project EFA model including: Standard conversion factor of 0.994 reflecting the value of and taxes on exports and imports. This factor is used on most input costs and output prices. Other conversion factors include 0.79 for rice price and 0.923 for maize, 0.83 for electricity and water costs, and 0.75 for transport costs. Based on an unemployment rate of 26percent, the shadow cost of labor is set to 0.74. The economic discount rate is set to 6percent to reflect a low average 2.2percent annual per capita growth in GDP in recent years.<sup>[5]</sup>

12. **Sensitivity Analysis.** The methodology includes a sensitivity analysis of the results presented at different levels of aggregation (e.g. crop-level, farm-level, project-level). The goal is to identify the key assumptions that drive the results. This includes calculating switching values (when the net present value turns zero) as well as calculating elasticities (the impact of a 1 percent change in an assumption shown as a percentage change in the project's net present value) and specific scenarios describing key risk factors.

### Financial Analysis Results

13. **Over time, project interventions are assumed to increase yields, costs and gross margins.** This has a positive impact on sales as well as home consumption. Compared to the without-project situation, crop yields increase by between 25 percent in grains to 100 percent in vegetables. While some costs increase too, gross margins can increase by 30-200 percent in different crops. Gross margins are lower on smallholder farms, which are typically without fertilizer use, irrigation, and mechanization. In this analysis it is assumed that project interventions will help smallholder farmers increase their gross margins to the level of currently more market-oriented farmers (SECFs).<sup>[6]</sup>

14. **Increased productivity is expected to enable producers to bring idle land into production with higher value crops as well as to adopt aquaculture or improve livestock production with fewer losses. Artisanal fishers will be able to reduce their post-harvest losses.**<sup>[7]</sup> As shown in Table 5.2, annual net income varies greatly from low technology smallholders at US\$140/farm/year to market-oriented aquaculture producers at US\$10,000/farm/year. The incremental impact of project interventions can increase a smallholder's net income by 50percent to US\$233/farm/year. Livestock and aquaculture can increase a smallholder's income by 2-7 times. Artisanal fishers can increase their net income by 24 percent if post-harvest losses can be halved from 30percent to 15 percent. This provides a measure of potential poverty reduction.

**Table 5.2: Financial Analysis – Estimated Indicators by Representative Farm**

Representative Models Description		WO/P	W/P	Change	percent
1	SECF Cropping	4.775	17.706	12.931	271
2	Smallholder/SF Cropping	140	233	93	66
3	Market Oriented/PAC Cropping	1.188	4.215	3.027	255
4	Livestock Chicken Production. Some crops	393	2.711	2.318	590
4	Larger Aquaculture	10.167	20.333	10.167	100



6	Smaller Aquaculture	0	1.017	1.017	0
7	CDD - Apiculture	0	178	178	0
8	CDD - Charcoal	0	4.198	4.198	0
9	MSME-Fingerlings	0	32.515	32.515	0
10	MSME-Fishfeed	0	30.622	30.622	0
11	MSME-Ice	1.607	2.861	1.254	78
12	Fishery	3.388	4.196	809	24

15. **Due to rates of return below the financial discount rate together with long payback periods, grant-financing of some investment costs may be necessary to ensure that beneficiaries can make viable investments.** It is important to ensure that farmers have access to finance for both working capital and for investment loans. For smallholder crop farmers cash may not be available at planting to afford higher quality seed and other inputs. Short-term loan arrangements via PACE farmers can alleviate this however, as noted in a Development Impact Evaluation (DIME, 2019b) brief the repayment rate of such loans was only around 50 percent. Project implementation should manage this risk by ensuring that PACEs and smallholders agree to feasible contracts and repayment terms. For large investments such as buildings, tractors, equipment, aquaculture ponds/cages and fishery equipment the return on investment needs to be considered. Table 3 summarizes the return on investment for five representative enterprises. For some investments, the IRRs are higher than the 20 percent financial discount rate indicating viable investments. However, it is important to note that a 3-year or higher payback period may make it harder to repay an investment loan. the fingerling models the rate of return is negative indicating that it may not be viable at a 20 percent discount rate. The payback period is 7 years. The investment is viable at a 17 percent discount rate or the FIRR increases to 20 percent with a 16 percent grant that reduces the investment costs to US\$ 194,000. In such examples, access to investment loans may be difficult. Grant-financing of some costs may need to be considered to make these investments viable for beneficiaries.

**Table 5.3: Financial Analysis – Return on Investment in Representative Enterprise Models**

Description	Investment, US\$	NPV, US\$	IRR	BCR	Payback Period
CDD - Apiculture	180	684	304%	3,4	1,3
CDD - Charcoal	1.500	18.169	-	2,2	0,0
MSME-Fingerlings	230.800	-29.922	17%	0,9	7,0
MSME-Fishfeed	218.500	-29.108	17%	0,9	7,1
MSME-Ice	1.000	12.381	-	2,2	0,0

## Economic Analysis Results

16. As explained in the methodology, all prices and costs used in the financial analysis are adjusted with conversion factors to estimate the economic impact of the project. Farm level net benefits are aggregated according to the number of targeted farmers, fishers, and enterprises in Table 5.4 The economic benefits also include a valuation of the project's impact on GHG emissions. Investment costs



include the US\$150 million project budget and a 2 percent estimate of Government's in-kind contributions, and 2 percent annual recurrent costs after project ends. Note that, the entire US\$150 million budget is assumed to be disbursed even if, in the long term, improved management practices may not be achieved for 100 percent of the beneficiaries.

17. **The project's impact on GHG emissions is estimated at 20.7 million tonne CO<sub>2</sub>-eq over the 30-year period (0.69 million tonne CO<sub>2</sub>-eq/ha/year) using FAO's EX-Ante Carbon Balance Tool (EX-ACT). See annex 4.** Because no transactions of carbon credits are planned to reach direct beneficiaries, the financial value of carbon is set to zero.

18. **The expected economic NPV at a 6 percent discount rate over 30 years is US\$62 million. The EIRR is 22.5 percent, the EBCR is 1.1 and the payback period is 11.1 years.**

### Sensitivity Analysis

19. The basis for a sensitivity analysis is to calculate elasticities for most assumptions. Elasticities show by how much the ENPV changes if each assumption changes by 1 percent. This process identifies key assumptions that should be considered during project design and for risk management. For example, a one-year delay in adoption reduced ENPV by 9percent. A 1 percent increase in the adoption rate increases ENPV by 1.3percent. A 1 percent decrease in the number of PACEs reduces ENPV by 1.3 percent.

20. In summary, the most important assumptions for project design are: Implementation delay; number of PACEs and how many smallholders they connect with; and number of livestock households. Key analysis assumptions that affect the results include: adoption rate; analysis period; economic discount rate; impact on GHG emissions; and farm size. Key farm- and enterprise level assumptions that affect project impact include: output prices and yields for higher gross margins (aquaculture, onion, potato, aquaculture, fishery); and operating costs particularly in livestock production, aquaculture, onion, and potato (materials, electricity, labor, transport, seed, fertilizer).

**Table 5.4. Sensitivity Analysis – Scenarios**

#	Description	NPV US\$ million		BCR	IRR
1	Moz Norte - base scenario	870	1010%	4,6	32%
2	MozNorte - base scenario. Excl. GHG emissions	78	0%	1,3	11%
3	MozNorte - base scenario Financial	-41	-152%	0,7	11%
4	Scenario: 3% discount rate	173	121%	1,5	11%
5	Scenario: 10% discount rate	14	-83%	1,1	11%
6	Scenario: 1 Year Delay	69	-12%	1,3	11%
7	Scenario: 2 Year Delay	61	-23%	1,3	11%
8	Scenario: 29-year analysis period	76	-3%	1,3	11%
9	Scenario: 20-year analysis period	33	-58%	1,1	9%
10	Scenario: 40-year analysis period	104	33%	1,4	12%
11	Scenario: No change in cropping pattern	29	-63%	1,1	8%



12	Scenario: Adoption rate increases to 100%	167	114%	1,6	16%
13	Scenario: Adoption rate falls to 50%	14	-82%	1,1	7%
14	Scenario: All output prices increase by 5%	105	33%	1,4	13%
15	Scenario: All output prices fall by 5%	52	-33%	1,2	10%
16	Scenario: 10% increase in project budget	62	-20%	1,2	10%
17	Scenario: 20% increase in project budget	46	-41%	1,2	9%
18	Scenario: High Shadow Price of Carbon	1.646	2000%	7,5	43%
19	Scenario: Market Shadow Price of Carbon	146	87%	,6	15%





## ANNEX 6: Country context and impact of COVID-19

### Impact of the COVID-19 pandemic on the country and Government response

1. **The Trajectory of COVID-19 in Mozambique:** Mozambique registered its first case on March 22, 2020. As of April 8, 2021, the number of people tested stands at 493,153, of which 68,506 (13.8 percent) have tested positive. Of grave concern has been the high increase in the rate of new positive tests which reached above 30 percent over the period of January 7 to April 8, 2021. Over this three-month period, 48,505 people tested positive – a five-fold increase over the previous peak since the first case was diagnosed. This has been linked to the relaxation of the COVID-19 preventive measures over the festive season, when people disrespected the rules on social distancing, on avoiding crowds, and on wearing masks.
2. **All ten provinces in Mozambique have seen cases with most cases centered around Maputo city (41.3 per cent of the total) and major cities.** Although hospitalizations (3,218) and mortality (789) (as of April 8, 2021), remain low, the rates for both have recently been increasing. After an initial and relatively flat peak in September 2020 Mozambique is, as of February 2021 amid a second and much sharper peak with more than 1100 cases registered in one day (February 3, 2021).
3. **Transmission Channels:** The Mozambican economy faces significant repercussions of the COVID-19 pandemic, eliminating hopes of a growth recovery following Tropical Cyclones Idai and Kenneth in 2019. Spillovers from the global economic downturn and restrictions to domestic movement affected economic activity most notably through the following transmission channels:
  - a) **Trade.** Reduced global demand and lower commodity prices resulted in a decline in goods exports of 26 percent in the first ten months of 2020 (year-on-year). This mainly reflects: (i) the concentration of Mozambique's export markets (together, the EU, South Africa and India accounted for almost two thirds of exports in 2019), and (ii) the country's reliance on commodities (coal and aluminum account for 60 percent of overall exports). Coal exports are particularly vulnerable as steel producers across the world cut production due to lower demand, and stock piling becomes unsustainable. Supply chains for Mozambique's imports are also expected to be affected, particularly as mobility restrictions remain in place in neighboring South Africa, as well as other key import markets such as China.
  - b) **Investments in the extractives industry.** Lower oil prices are affecting investments in the LNG industry. Two out of three LNG projects that were in development are proceeding, but the third, which was still at pre-final investment decision stage has been postponed. Expected investments in the coal industry have also been delayed due to lower prices and global demand and LNG project financing flows are set to narrow. Overall, the extractives industry is expected to have contracted by 12 percent in 2020, having already seen a negative growth of 1 percent in 2019.
  - c) **Social distancing and travel restrictions.** Accounting together for almost a quarter of Mozambique's economic output, the hospitality, transport, retail, and real-estate sectors have felt the brunt of lower domestic and external demand. Reduced movement, especially in urban areas, and the drop in international travel is already evident in short term private



sector activity indicators such as Purchasing Manager's Index (PMI), which fell to a historic low in July 2020. Some improvement has been recorded in business sentiment during the last months of 2020 with the PMI recovering steadily, reflecting the partial relaxation of COVID-19 containment measures. Private services output contracted by 3 and 5 percent in the second and third quarters of 2020, respectively, owing to lockdown measures and supply disruptions.

4. **The impact of the pandemic has been broader than indicated by the growth outlook, which relies to a large extent on the contributions of LNG investments to the economy.** The expected poverty impact of COVID-19 is significant as jobs and income opportunities, especially for urban and peri-urban population, and for women, decline. The impact on jobs has been significant. Preliminary results from a rapid phone survey amongst the urban population suggest that, by June 2020, roughly 24 percent of interviewed individuals working prior to the outbreak were no longer employed. Many cited the closure of business in response to the pandemic as the cause. Moreover, over 60 percent of interviewed households indicated that revenues from family-owned business have declined when compared to same period of 2019. However, by December 2020, there was a slight recovery in employment, reflecting the relaxation of confinement measures. The percentage of interviewed individuals working prior to the outbreak and who were no longer employed had declined to 11 percent.

5. **Reduced short-term growth prospects of Mozambique.** In 2020, Mozambique experienced its first economic contraction in nearly three decades as external demand falls, domestic lockdown measures disrupt supply chains and depress domestic demand, and LNG investments are delayed. Real GDP declined by 1.3 percent in 2020 from 2.3 percent growth in 2019. Recovery is anticipated to be slower than expected. Growth is projected at 1.7 percent in 2021, down from the pre-COVID estimate of 5 percent, given the slow roll-out of the COVID-19 vaccine, rising virus cases and deaths, and tightened containment measures. Nevertheless, recovery is anticipated to begin in 2021, albeit from a low base, with growth expected to reach 4.2 percent in 2022. However, much depends on the path of the pandemic and the outlook is subject to significant downside risks. Downside risks include rising COVID cases and escalation of insurgency in the North which could pose additional challenges for the development of LNG facilities. Mozambique is also expected to experience large external and fiscal financing gaps in 2020 and 2021 in a context characterized by exposure to external shocks and limited fiscal space.

6. **Primary deficit widening.** The primary deficit is expected to widen to 4.9 percent of GDP in 2020, up from a pre-COVID-19 forecast of 1.1 percent, reflecting lower revenue collection and an increase in COVID-19-related spending in the second half of the year. Revenue collection declined as demand declines and COVID-19 tax relief measures for firms take effect. On the expenditure side, implementation of COVID-response measures, estimated at 2.2 percent of GDP, pushed total spending to 33 percent of GDP, from 30 percent in 2019. Overall, the COVID-19 shock is expected to contribute to a fiscal gap of 3.6 and 2.5 percent of GDP in 2020 and 2021. The risks to this outlook are on the downside since a more prolonged crisis could add further fiscal pressures. This occurs in an already constrained fiscal context characterized by low revenue collection, a high public debt burden and a growing wage bill, affording little fiscal space for Mozambique to confront these costs. To help close the fiscal gap, Mozambique is relying on the bilateral debt relief initiative, donor budget



support, and draw-down of saving from past capital gains receipts. The GoM continued to protect priority social expenditures despite the significant budgetary pressures from the global pandemic.

7. **Falling Back into poverty:** Given the depth of the COVID-19 crisis, Mozambique's already difficult poverty situation is expected to be aggravated further. The negative impacts on income are expected to be felt relatively more in urban and peri-urban areas where social distancing measures and business closures are having most effect. As such, the pandemic is expected to predominantly affect poor populations in these areas, impacting their sources of income from informal work and self-employment. Mozambique's urban poverty rate is estimated to increase from 29 to at least 31 percent in 2020, on account of employment and income losses, price increases and a deterioration of public services.

8. **Simulations of the potential short-term effects of the ongoing COVID-19 outbreak on employment and income hint at potentially high increases in poverty.** As of 2020 (pre COVID-19), projected poverty rate was estimated to be 43.8 percent of the population (50.7 percent in rural areas and 29 percent in urban centers) and were expected to be the hardest hit by the outbreak through a drop in income, price effects and disruptions to service delivery. Urban low-income households are particularly vulnerable since most earn their income through self-employment in the informal economy. A scenario that assumes a cumulative drop in consumption of 25 percent among households with at least one worker in the "at-most-risk" sectors would increase urban poverty by 6.7 percentage points (from 29 to 35.7 percent), corresponding to nearly 700,000 extra poor in addition to the 3.2 million urban individuals that already are in a condition of poverty. In rural areas, the same scenario would push up the rural poverty rate from 50.7 percent to 52.9 percent (2.2 percentage points), equivalent to nearly 450,000 extra poor individuals<sup>49</sup>.

9. **Exacerbating pre-existing factors of fragility and widen inequalities and imbalances across the country.** The spatial distribution of poverty is skewed – with poverty almost twice as high in rural areas in comparison as with urban centers - and growing inequality between rural and urban areas. The Northern and Central regions continue to lag the Southern regions, with many more people being poor in Niassa (67 percent), Nampula (65 percent) and Zambezia (62 percent) than in Maputo Province (12 percent) and Maputo City (4 percent), the two areas that have seen the largest decline in poverty rates in the past decade. The pandemic could widen these divides, heighten socioeconomic grievances, and sharpen the inequalities and sense of marginalization that have helped to underpin the escalating insurgency in the Northern province of Cabo Delgado.

10. **Impact on Human Capital (Health and Education).** The COVID-19 pandemic created major challenges. Nearly 15,000 schools, 178,00 teachers, and over 8.5 million students at all levels of education were affected by school closures since March 2020 and is projected to result in significant losses in enrollment and learning, including the loss of 0.7 years of schooling adjusted for learning, bringing down the effective years of basic education that students achieve during their lifetime to 3.7 years; and 20 percent of the Mozambican children never returning to formal education. Exclusion and inequality will likely be exacerbated as already marginalized with vulnerable groups – girls, the poor, and persons with disabilities – more adversely affected by the school closures. Even with schools reopening in 2021 as currently planned by the Government, Mozambique will need support

<sup>49</sup> World Bank estimates based on simulated poverty rates under urban and rural scenarios, 2020.



to attract learners (especially adolescent girls) back to school, ensure a safe and sanitary environment in all schools, come up with remediating measures to catch up with a loss of learning, and continue strengthening distance learning to offer a more flexible modality for students not returning to schools that can be scalable and implemented quickly in the cases of emergency.

11. **An important impact of COVID-19 on the health sector has been the high rate of infection among health staff.** To date, 1,759 or 3 per cent of the total workforce in the country have been infected, with 32 percent of those from Maputo City. Government has restricted attendance to clinical care for aged doctors and nurses to reduce the risk of infection. Overall, this translates in reduced availability of staff to deliver care, particularly in areas most hit by the pandemic putting additional burden on the health workforce, who are already overworked due to the general scarcity of health professionals, and whose levels of anxiety and fear are significant and requiring adequate measures to ensure their mental health and well-being. Another important impact is reduction in the provision of other essential services on account of resources being shifted to control the pandemic and manage cases, and on limited use of service by patients who fear being infected in health facilities. Between March and April 2020, the vaccination coverage may have reduced by 30 per cent. Similarly, during the same period, a reduction in notification of tuberculosis cases was reported by the National Tuberculosis Control Program. It is believed that patients with chronic conditions and those on Anti-Retroviral treatment may have not presented themselves for follow up regularly due to fear of COVID-19 infection or misunderstanding of messages on social distancing and avoidance of crowded spaces.

12. **Debt implications.** Mozambique's debt is assessed to remain in distress, but sustainable in a forward-looking sense. This assessment is unchanged relative to the last Debt Sustainability Analysis (IMF, 2020). External and total public debt are projected at around 103 and 120 percent of GDP in 2020, respectively. While the distress rating is due to the unresolved arrears to Brazil, debt is deemed sustainable in a forward-looking sense considering that, to a large extent, future borrowing and government guarantees reflect state participation in the sizable LNG developments. Participation in the Debt Service Suspension Initiative (DSSI) and its extension would provide debt service relief in 2020 and the first half of 2021, thus flattening the projected sharp deterioration in debt liquidity indicators due to the COVID-19 pandemic. Participation in the DSSI between October and December 2020 was estimated to have provided a relief amounting to 0.6 percent of GDP (or 2 percent of fiscal revenue). Debt service levels remain substantially high. External and public debt service-to-revenue ratios were projected at 13 and 48 percent, respectively, by the end of 2020. The authorities' strong commitment to implement fiscal consolidation and a prudent borrowing strategy and the coming on-stream of the LNG projects are expected to put public debt indicators on a downward trajectory over the medium term.

13. **Financing needs.** In order to respond to the potential effect of the pandemic, the Mozambique Government elaborated a US\$700 million plan to be funded by development partners and composed by health (prevention and treatment - US\$100 million), budget support (US\$200 million), social protection (US\$240 million) and small businesses support (US\$160 million) measures. As of December 2020, donor disbursements to Mozambique for COVID-19 totaled US\$594.2 million (about 4 percent of GDP). Of this amount, US\$309 million were from the International Monetary Fund (IMF), US\$40 million from the African Development Bank, US\$142 million from the World Bank



and the rest (US\$103.2 million) from other donors.

14. **The financing needs in the social sectors are expected to be as follows:** The first phase of the COVID-19 cash transfer scheme, costing US\$79 million, has been 50 percent disbursed as of January 27, 2020. The cost of Phase 2 cash transfers to finish payments to urban and peri urban beneficiaries is approximately US\$140 million. Health financing needs, to cover gaps in the COVID-19 Preparedness and Response Plan and its forward-look adjustment in the context of the second peak, and including the recently elaborated greater Maputo Response Plan, estimated at US\$120 million. An external financing gap of 6 percent of GDP is anticipated in 2020, which should be financed by donor budget support, DSSI, and savings from past capital gains receipts and reserve drawdowns.

### Government response

(a) **Since the global outbreak, Government has taken important steps to prevent and respond to a COVID-19 outbreak,** including a declaration of a State of Emergency by the President first in April 1, 2020 that was extended three times up to September 6, 2020. Since September 7, 2020, Mozambique has been in a State of Public Health Calamity (SPHC), with a red alert (which is used in cases where there is an elevated threat that could turn into a public disaster). Key features of the SPHC include:

- **The GoM initiated its response program at an early stage of the global pandemic in recognition of the severe impact that the COVID-19 crisis could have on lives and livelihoods.** The GoM's response to date has sought to save lives through measures to limit the spread of the virus amongst the population, a public health response program to test and treat patients, and by ensuring continued access to water to promote sanitization. The authorities are also protecting livelihoods by widening access to social safety nets and providing support to firms and the banking sector.
- **Mozambique initiated a state of emergency and commenced implementing measures to limit the spread of the virus when the number of confirmed cases was still below ten.** The Authorities started taking steps to limit contagion by issuing a state of emergency on April 1, 2020, followed by a SPHC in early September 2020. Measures include a ban on all public gatherings, the closure of all schools and universities, passenger limits on public transport and the requirement to wear masks in public places. Entertainment venues have been closed whilst shops, markets and restaurants are required to comply with social distancing rules. Several borders with neighboring Eswatini and South Africa are closed, although the main trade route, Ressano Garcia, remains open for goods, supplies and cargo. All international passenger flights, to and from Mozambique, were suspended in May 2020. As of September 15, 2020, Mozambique's air space was reopened on a reciprocal basis with six countries offering flights to the country (Portugal, Turkey, Qatar, Ethiopia, Kenya, and South Africa). A negative COVID-19 result, performed in the country of origin in the 72 hours prior to travel, has been set as prerequisite for entry in the country, as well as a 10-day quarantine period followed by an additional test. Mozambique has also restarted the issuance of entry visas and has set up an online platform for requests, with the aim of facilitating processing. Recent increase in cases in South Africa, Malawi and Zimbabwe are further impacting the subregion, with additional



controls being put in place at borders as of early January 2021.

- **The health sector is implementing a COVID-19 response program that has quickly raised testing capacity and is increasing access to medicines and equipment, whilst improving treatment capacity.** The health authorities established multiple testing centers in the capital (where the first cases were detected) and is creating testing facilities in other parts of the country. Efforts are being made to trace and test contacts of confirmed cases to limit the spread of the virus. Treatment facilities have also been improved and a public communication campaign has been launched to provide health advice and regular updates on testing levels/confirmed cases. To complement the health sector response, the authorities introduced measures to ensure continued access to water, irrespective of bill payment status, and reduced water cost for low-income groups to promote good hygiene practices. The purchase of soap was exempted from value added tax (VAT) payment until the end of 2020.
- **An expansion of social protection programs is underway to support the livelihoods of the most vulnerable amongst the population.** This includes a significant expansion in urban areas where social distancing measures are having the largest impact on incomes. Overall, the number of beneficiaries is set to increase from 700,000 currently to 1,690,000 households. Innovations in the targeting program are being introduced to rapidly identify beneficiaries through spatial poverty mapping and to expedite access to transfers by using mobile money transfers.
- **The Government's response also seeks to safeguard livelihoods by providing support to SMEs and to ensure that the banking sector has sufficient liquidity to support the private sector.** A set of fiscal measures are being implemented to support the private sector, especially small firms. Tax burden relief is being provided by postponing income and corporate tax payments due from small firms to 2021. A 10 percent reduction of the electricity tariff for commercial customers in the agriculture, hotel and restaurant services gives additional cash flow relief to sectors that are particularly severely hit. A temporary suspension of commissions on mobile money transfers and increased transaction limits will also benefit small and informal firms, 70 percent of whom use mobile money. This package is supplemented by a credit line for micro firms currently under preparation by the authorities.
- **The Central Bank eased lending reference rates and facilitated access of importers to foreign exchange (forex) loans.** It has also taken steps to increase liquidity by lowering reserve requirements for forex and local currency loans by providing a US\$500 million credit line to the banking sector. Furthermore, the Central Bank has relaxed prudential requirements for loan restructuring for firms affected by COVID-19, before they become due, by waiving additional provisioning requirements.

(b) **In summary, the Government's COVID-19 measures to support households and firms implemented in 2020 included:**

1. Simplification of import procedures for medicines and medical equipment.
2. Increased surveillance, testing and case management capacity, including infection prevention and control measures in health facilities and laboratories.
3. Initiation of protocol development for continuity of essential services.
4. Public communication campaign for prevention and test/detection updates.
5. Continued supply of water to households irrespective of payment status, delayed payment





of water bills and exemption of payment for low consumption users. Social Protection Measures

6. Expansion of the number of beneficiaries of social protection programs from 700,000 to 1,690,000 households.
7. Simplifying ID requirements for mobile money transfers to social protection beneficiaries.
8. Establishing a fuel price stabilization fund and allocating savings to the COVID-19 response.
9. Suspension of VAT on soap, oil, and sugar until end 2020.
10. Monitoring of market prices to curb opportunistic pricing.
11. 10 percent reduction in electricity tariffs for businesses and 50 percent for low-income households during the state of emergency. Measures to support firms.
12. Postponement of income and corporate tax payments for small firms (turnover less than MZN 2.5 million) until 2021.
13. 10 percent reduction of electricity tariff for agricultural businesses, restaurants, and hotels.
14. US\$160 million credit line for micro businesses (in preparation).
15. Suspension of mobile money commission fees and increase in mobile money transaction limits for three months.
16. Cut in the policy interest rate from 12.75 to 10.25 percent.
17. Reduction of the reserve requirement for local currency from 13 to 11.5 percent and for foreign currency loans from 36 to 34.5 percent.
18. US\$500 million forex credit line to commercial banks.
19. Removal of specific provisioning requirements for forex lending to importers.
20. Facilitating the restructuring of credits for COVID-19 affected firms if needed before payments become due.
21. Temporary requirement to convert 30 percent of export proceeds to local currency

### **WBG support for responding to the crisis**

15. **This operation is part of an adjusted CPF program to help Mozambique manage and respond to the COVID-19 crisis<sup>50</sup>.** The COVID-19 response is articulated as follows: The health response under Pillar 1 (Saving Lives) draws on US\$40 million mobilized through CERC activations as well as US\$4.5 million drawn from other health sector operations and US\$2 million of new Pandemic Emergency Facility (PEF) funding to be disbursed through United Nations partners (United Nations Population Fund, WFP, UNICEF, and World Health Organization). See Table 6.1. Additionally, a US\$100 million Vaccine project, the Mozambique COVID-19 Strategic Preparedness and Response Project (P175884) - under preparation, will provide support for COVID-19 vaccines procurements and delivery. Under Pillar 2 (Protecting Poor and Vulnerable People), the World Bank response includes US\$53.5 million to support phase one of cash transfers to the poorest and most affected households; US\$3.6 million to support the water utility (FIPAG<sup>51</sup>), to operationalize relief measures for the water sector; and US\$15 million to support water supply and sanitation improvements for safe return to schools. Under Pillar 3 (Ensuring Sustainable Business Growth and Job Creation), US\$8.9 million under the ILM Portfolio are supporting agribusiness, conservation areas, and smallholder farmers. The Power Efficiency and Reliability Improvement Project (P158249) is being restructured with savings achieved from the project to allocate US\$30.6 million for the

<sup>50</sup> Mozambique – Performance and Learning Review of the Country Partnership Strategy IDA/R2020-0117, April 3, 2020

<sup>51</sup> Fundo de Investimento e Património do Abastecimento de Água

Government's electricity support program to support most vulnerable customers and also to ensure for hospital and educational centers to continue operating without further hurting the revenues of national electricity utility. Under Pillar 4 (Strengthening Policies, Institutions and Investments for Rebuilding Better), the Mozambique Urban Development and Decentralization Project (P163989) and the Maputo Urban Transformation Project (P171449), which were approved respectively in June and December 2020, are supporting municipalities in preparing and implementing their respective Municipal Action Plans for COVID-19 response to enhance municipal capacity to identify, monitor, and track infections and expand municipal services to assist the most vulnerable populations. In Maputo, which is at the epicenter of the COVID-19 crisis, the Urban Transformation Project will focus on rapid deployment of small-scale, low-cost, and scalable urban solutions to reduce COVID-19 community transmission in hotspot areas of the city. This will be combined with simple urban infrastructure investments that are labor intensive to help mitigate the economic impacts of COVID-19 in Maputo City, such as rehabilitation of open spaces, local roads, and alleys. Project resources diverted from ongoing projects to COVID-19 response will be replenished through additional financing operations that will be presented for World Board Executive Directors' approval in FY21.

**Table 6.1. World Bank COVID-19 Support**

<b>Areas of Intervention</b>	<b>Cost (US\$, millions)</b>
<b>Pillar I: Saving Lives</b>	
Health ( <i>including COVID-19 Strategic Preparedness and Response Project under preparation</i> )	144.5
-of which from PEF	2.0
<b>Pillar 2: Protecting Poor and Vulnerable People</b>	
Social protection	53.5
Water and sanitation	18.6
Education support	1.3
<b>Pillar 3: Ensuring Sustainable Business Growth and Job Creation</b>	
SME support	12.8
Electricity payment relief for social tariff and hospitals health and education public centers	20
<b>Pillar 4: Strengthening Policies, Institutions and Investments for Rebuilding Better</b>	
Policy reforms to mitigate impact and build resilience	100.0
Support to cities and municipalities	20.0
<b>Total</b>	<b>366.8</b>

#### **Selectivity, complementarity, partnerships**

16. **The World Bank is coordinating closely with development partners on the overall COVID-19 response.** The World Bank is leading (along with the World Health Organization, United Nations Children's Fund, United States Agency for International Development, and ProSaude) the COVID-19





Core group overseeing the overall coordination from the partner side. The World Bank also is a member of the Social Protection COVID-19 Technical Assistance Group (along with Sweden, UNICEF, International Labour Organization, World Food Program, and The Foreign, Commonwealth & Development Office ). Finally, the World Bank leads the Education COVID-10 Response Group (along with UNICEF and MEPT).

17. **The Work Bank support is also closely coordinated with development partners with regards to budget support.** The IMF approved an emergency support to Mozambique through a Rapid Credit Facility operation on April 24, 2020. The RCF allows the Government to disburse up to US\$309 million to help bolster foreign exchange reserves and, together with the World Bank's funds, reduce the fiscal financing gap. The World Bank budget support also reinforces the IMF's agreement with the Government on strict transparency and accountability measures regarding expenditures related to the COVID-19 response. The African Development Bank (AfDB) and the EU are also preparing budget support operations. AfDB's operation of US\$40 million is aimed at supporting actions and reforms related to the health response, supporting businesses and employment with a focus on agriculture, and supporting social protection.

18. **Finally, cooperation and articulation of development partner response is being carried through via a high level crisis response group made up of the key donors** (incl AfDB, IMF, WB, Canada, UK , Ireland, US, EU and Netherlands ) that meet on a monthly basis with top Government officials (at the level of the Minister of Finance and other ministers or equivalent for sectoral issues) to take stock of development, highlight key priority issues for support by the donor community and plan for follow up activities/coordination.



## ANNEX 7: Climate Risk Screening, Co-Benefits and GHG Accounting

### Climate Risk Screening by Sector

1. **Coastal Flood Protection - Built Infrastructure:** The Climate Risk Screening rating is High Potential Impact. In 2019, two devastating cyclones (Idai and Kenneth) hit the country, with devastating effects on houses, businesses, and core infrastructure with losses amounting to about US\$3 billion. Around 250,000 lives were shattered by Kenneth alone, that hit Cabo Delgado. Strong winds associated with heavy rainfall during rainy seasons erode coastal embankments and destroy basic infrastructure and services along the coast, leaving many people without jobs. Because of the severity of potential impacts from strong winds associated with heavy rainfall, a High Potential Impact rating is selected. Projections indicate that the proportion of rainfall in heavy rains and that total annual precipitation are likely to increase in the future. Mozambique's population strong dependence natural resources, and its low adaptive capacity, exacerbate the vulnerability to climate change. Knowledge on climate events' variability, intensity and on population's vulnerability will be factored into the design of all infrastructure to be built or refurbished under this project.
2. **Coastal Flood Protection - Mangrove:** The rating is High Potential Impact. Recent extreme climate events in Northern Mozambique resulted in considerable removal of coastal vegetation, including mangroves. The expectation is for even stronger impacts in the near future, due to projected sea level rise, and increase in frequency of strong winds with heavy rainfalls. The project will help restoring mangroves, to reduce storm surges, erosion, tidal floods, protect wildlife habitats, protect coastal communities, and improve their resilience.
3. **Biodiversity:** The rating is High. Extreme weather events such as precipitation and strong winds might result in losses and migration of some species, which is likely to be exacerbated by wildfires caused by the projected temperatures rise. The vulnerability of communities to extreme climate events is also likely to induce them towards illegal logging and poaching, to compensate for the loss of basic infrastructure, services, and croplands. This will be particularly true for the three Conservation Areas covered by the project<sup>52</sup>, as the North is expected to experience more frequent destructive flood events.
4. **Forestry:** The rating is High due to the projected increase in temperatures, which is likely to raise the frequency and intensity of wildfires that would destroy massive native forests and shatter local communities' lives, including beneficiaries of the Planted Forest Grant Scheme. Extreme climate events already forced thousands of people to be displaced and reallocated as their basic infrastructure services and houses were destroyed, further worsening deforestation rates as new land is cleared to reallocate people and open new crop fields. Insects outbreaks are also expected to increase as a result of these extreme events, and this might impact the yield of the planted forests. The Project will help mitigate climate change by preventing the loss of carbon-rich habitats, namely by addressing the main drivers of deforestation, such as slash and burn agriculture, and enhance the effectiveness of Conservation Areas management, to reduce illegal logging and consequently GHG emissions.
5. **Fisheries:** The potential impact is rated as High. Climate change impacts are harming basic infrastructure and services, eroding natural resources and endangering fish stocks and their ecosystems. Expected higher temperatures in the project area might induce the presence of unexpected predators which can reduce also fish stocks. Extreme rainfall and floods might cause damage of aquaculture tanks. Small-scale aquaculture and fishers

<sup>52</sup> Quirimbas National Park, Niassa Forest Reserve and Ilhas Primeiras e Segundas.



are particularly vulnerable to these impacts, due to their coastal setting and their poverty. The project will support the development of fisheries and aquaculture-related value chains to reduce postharvest loss, improve value addition to fishing products, and thus improve climate resilience.

### Project Intent to Address Climate Vulnerability

6. **This project will address the identified climate risks and vulnerabilities by prioritizing investments that promote more resilient livelihoods and improved management of natural resources which these livelihoods depend on.** This will include prioritizing climate-smart solutions in the various community-driven activities, from agriculture to forestry, conservation areas management, biodiversity protection, fisheries, and infrastructure development/upgrading. The project will enhance adaptive capacity of local communities, reducing both individual and collective climate vulnerability. More details on how the project will prioritize addressing climate change are provided in the table and sections below.

**Table 7.1. Specific Project Activities for Climate Mitigation and to Address Climate Change Vulnerability**

Component	Description	Amount for climate change mitigation and adaption (US\$, millions)
<b>Component 1</b>	<b>Component 1 Subtotal</b>	<b>98.8</b>
Livelihoods Stabilization through CDD	<ul style="list-style-type: none"><li>• Support to climate proof and green infrastructures in 18 districts</li><li>• Support to sustainable and conservation friendly livelihoods opportunities, including conservation agriculture, agro-forestry systems, non-timber forest products (honey, medicinal plants, fruits), sustainable biomass production, tree planting in 300 communities</li><li>• Support to climate proof community infrastructures (small irrigation schemes, boreholes, off-grid green energy) that increase adaptation capacity to climate change impact in 300 communities</li><li>• Support to 300 communities on participatory planning including awareness raising on sustainable natural resource management, climate risks and techniques for climate adaptation</li></ul>	18 30

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Improved and more inclusive Management of Conservation Areas	<ul style="list-style-type: none"> <li>• Support to improved CA management for improved biodiversity and wildlife protection and preservation of fragile ecosystems, carbon-rich woodlands and habitats</li> <li>• Support to climate-resilient infrastructure for CA management and nature-based tourism (e.g. solar-powered boreholes and inspection posts, using climate risk reduction building codes)</li> <li>• Support to community involvement in CA management including community capacity strengthening for adaptation to climate risks through small works (i.e. solar powered boreholes) and transfer of knowledge and tools (i.e. on conservation agriculture techniques, beekeeping for livelihoods and forest preservation etc.)</li> <li>• Awareness-raising campaigns in 30 schools around CAs to include biodiversity conservation and climate change mitigation and adaptation as part of school curriculum</li> <li>• Elaboration of land-use zoning plans around CAs to ensure protection of fragile ecosystems, stricter occupation in high climate risk areas, and mainstreaming of “ecological infrastructure” in the local territorial development plans.</li> </ul>	23
Improved Management of Fisheries Resources	<ul style="list-style-type: none"> <li>• Support to enhancement of fisheries monitoring, control and surveillance through development of sustainable fisheries practices to address overfishing and impacts of climate change</li> <li>• Support to local fisheries co-management, aiming to increase the ownership and capacity of communities to manage natural resources sustainably while adapting to impacts of climate change</li> </ul>	2
<b>Component 1+ Component 2 TOTAL</b>		128,5

### World Bank Mandate and Accounting Methodology

7. In its 2012 Environment Strategy, the World Bank adopted a corporate mandate to conduct GHG emissions accounting for investment lending. The World Bank uses the EX-ACT, developed by FAO in 2010, to assess a project’s net carbon-balance of agriculture and forestry development projects, programs, and policies. The Ex-ante tool computes the carbon-balance by comparing two scenarios: “without project” (*business-as-usual scenario*) and “with project”. It is a land-based accounting system, estimating Carbon stock changes (i.e. emissions or sinks of CO<sub>2</sub>) as well as GHG emissions per unit of land, expressed in equivalent tones of CO<sub>2</sub> per hectare and year. The EX-ACT tool categorizes activities in seven modules: land use change, crop production, livestock and grassland, land degradation, inputs and investment, coastal wetlands and fisheries and aquaculture. It has been developed using mostly the Intergovernmental Panel on Climate Change (IPCC) 2006 Guidelines for National Greenhouse Gas Inventories (IPCC 2006), completed with the 2013 supplement document for wetlands (IPCC 2014) that furnishes EX-ACT with recognized default values for emission factors and carbon values, the so called Tier 1 level of precision.

### Project Description and Objectives



8. The Projects main objective is to improve livelihoods of vulnerable communities and management of natural resources in selected rural areas of Northern Mozambique, with special focus on IDPs and host communities, and women. The project as four main components (as described in annex 1): (1) Improving access to natural resource dependent livelihoods and community infrastructure; (2) Improved management of natural resources; (3) Institutional Strengthening, project coordination and management; and (4) CERC. Component 1 and 2 interventions will be used to analyses the project's carbon balance.

### Ex-Ante GHG Emission Assessment

9. This section presents an Ex-Ante assessment of the net emissions reduction calculations of the project “Northern Mozambique Rural Resilience Project (P174635)” with use of the EX-ACT tool<sup>53</sup>. In total, the project will have a positive impact in terms of climate mitigation: the scenario ‘with project’ compared to ‘without project’ results in a net carbon sink of **-20,735,573 tCO<sub>2</sub>-eq** over a period of 30 years (5 years of implementation and 25 years of Capitalization), resulting in a net balance of **-691,186 tCO<sub>2</sub>eq** per year. Results presented here are conservative as some of the activities with mitigation potential were not accessed and most of the activities that indirectly contributes to the reduction of CO<sub>2</sub> footprint of the project cannot be included on the calculation. More in detail, avoided deforestation constitutes the largest share on the mitigated tCO<sub>2</sub>-eq, followed by improved agronomic practices. The adoption of improved land and integrated nutrient management practices will contribute to soil C sequestration so that the net project effect will be the creation of a C sink, with positive effects in terms of mitigation. Livestock constitutes the largest share on the total tCO<sub>2</sub>-eq emitted as result of project implementation. Figure 7.1 and Table 7.2 show the impact of each activity over 30 years.

**Table 7.2. Results per activities; all GHG in tCO<sub>2</sub>eq**

Activities	Gross fluxes (30 years)		Net carbon Balance	Result per year		
	GHG emission of “Without project”	GHG emission of “with project”		GHG emission of “Without project”	GHG emission of “with project”	Net carbon Balance
Avoided Deforestation						
Total	118,114,793	100,397,706	-17,717,087	3,937,160	3,346,590	-590,570
Afforestation						
Total	0	-1,452,583	-1,452,583	0	-48,419	-48,419
Other LU Changes						
Total	0	91,725	91,725	0	3,058	3,058
Improved crop production practices						
Total (Annual)	-329,535	-2,829,021	-2,499,486	-10,984	-94,301	-83,316

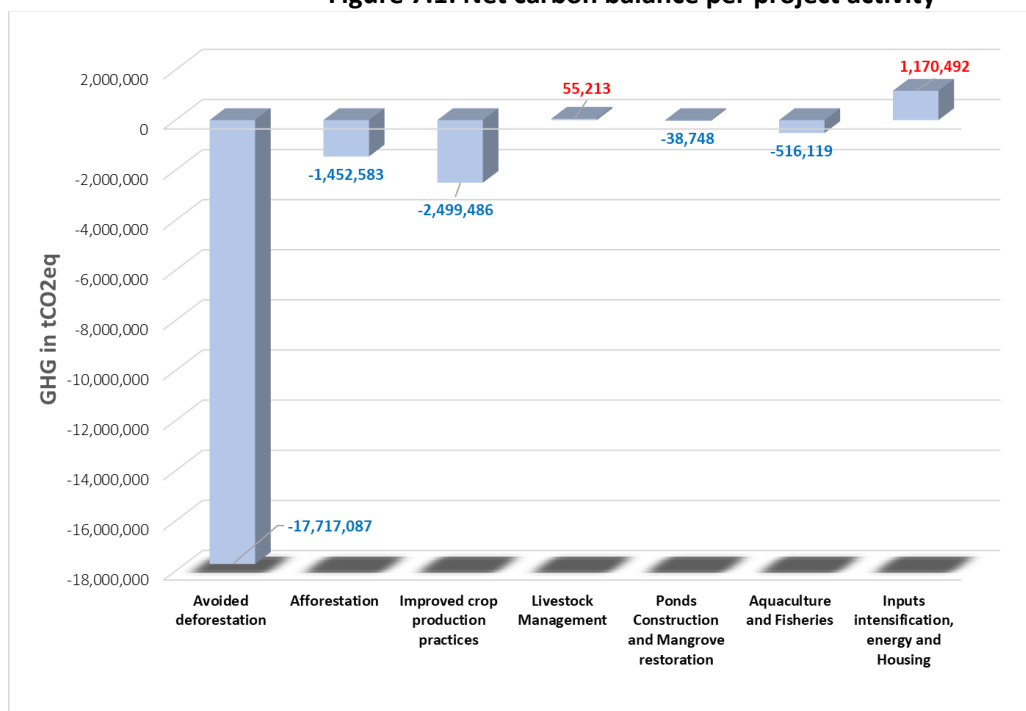
<sup>53</sup> The World Bank uses the EX-ACT, developed by FAO in 2010, to assess a project's net carbon-balance of agriculture and forestry development projects, programs, and policies. The carbon-balance is the net balance of tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>-eq) that were emitted, or carbon sequestered as a result of project implementation compared to a “without project” implementation scenario (business-as-usual scenario). EX-ACT is a land-based accounting system, estimating Carbon stock changes (i.e. emissions or sinks of CO<sub>2</sub>) as well as GHG emissions per unit of land, expressed in equivalent tones of CO<sub>2</sub> per hectare and year. EX-ACT categorizes activities in five modules: land use change, crop production, livestock and grassland, land degradation, inputs and investment.



<b>Total (Perennial)</b>	0	-7,420	<b>-7,420</b>	0	-247	<b>-247</b>
<b>Total (Rice)</b>	30,913	209,354	<b>178,440</b>	1,030	6,978	<b>5,948</b>
<b>Livestock</b>						
<b>Poultry</b>	6,135	61,347	<b>55,213</b>	204	2,045	<b>1,840</b>
<b>Ponds Construction (Excavation)</b>						
<b>Total</b>	0	-38,748	<b>-38,748</b>	0	-1,292	<b>-1,292</b>
<b>Fishery and Aquaculture</b>						
<b>Total</b>	3,068,025	2,551,906	<b>-516,119</b>	102,268	85,064	<b>-17,204</b>
<b>Fishery</b>	3,049,079	2,514,853	-534,226			
<b>Aquaculture</b>	18,946	37,053	18,107			
<b>Inputs intensification and Investments</b>						
<b>Total</b>	89,862	1,260,354	<b>1,170,492</b>	2,995	42,012	<b>39,016</b>
<b>Grand Total</b>	120,980,194	100,244,621	<b>-20,735,573</b>	4,032,673	3,341,487	<b>-691,186</b>
<b>Per hectare</b>	18.3	15.2	<b>-3.1</b>			
<b>Per hectare per year</b>	0.6	0.5	<b>-0.1</b>	0.6	0.5	<b>-0.1</b>



**Figure 7.1: Net carbon balance per project activity**



**Table 7.3. Inputs to EX-ACT**

	EX-ACT module Project activity	Initial situation	Without project	With project
POSITIVE (CARBON SINK)	Avoided Deforestation (ha)	6,545,330	6,276,948	6,317,205
	Improved agronomic practices <sup>(a)</sup> – Maize (ha)	146,08	14,608	17,056
	Improved agronomic practices <sup>(a)</sup> – Sesame (ha)	6,656	6,656	6,584
	Improved agronomic practices <sup>(a)</sup> - Soybean Potatoes	6,656	6,656	7,880
	Improved agronomic practices <sup>(a)</sup> – Beans (ha)	13,192	13,192	13,072
	Improved agronomic practices <sup>(a)</sup> – Cassava (ha)	6,632	6,632	6,536
	Improved agronomic practices <sup>(a)</sup> – Onion (ha)	576	576	1,104
	Improved agronomic practices <sup>(a)</sup> – Potatoes (ha)	504	504	1,104
	Improved agronomic practices <sup>(a)</sup> – Rice (ha) 150 days of cultivation period, irrigated (continuously flooded) – Conventional (rainfed and deep water)	480	480	480
	Unproductive (owned by farmer) (ha)	6,436	6,436	1,924
	Total (ha)	55,740	55,740	55,740
	Afforestation (PACES) (ha)	0	0	5631
	Livestock Chicken Producer (head number)	484,00	48,400	484,000





Production (Tonnes of production per year) Chicken (100% of production – meat)	73	73	726
Excavation for Pond construction (ha)	0	0	841
Annual production aquaculture	798	798	1,630
Annual quantity of feed (Tilapia) – Tonnes per year	0	0	2,120
Total catch per year (Fishery)	110,000	110,000	150,000
Quantity of Ice for catch conservation (tonnes) – assumed 2.8 tonnes per tonne of catch (Ashore only) Ice on boats not accounted	0	0	420,000
Electricity used to produce the ICE (Kw)	0	0	60
Application of Urea (Tons/year)	215	215	958
Application of fertilizers – Other Chemical N (Tons/year)	51	51	275
Application of fertilizers – Phosphate (Tons/year)	102	102	524
Application of fertilizers – Potassium (Tons/year)	51	51	275
Application of pesticides (Tons/year)	0	0	1,200
Electricity consumption (MWh/year)	57	57	320
Houses and offices construction	0	0	30,200
Fuel consumption – Diesel (m <sup>3</sup> /year) (Cars, Boats, and others)	52	52	386
Fuel consumption – Gasoline (m <sup>3</sup> /year) (Motorcycle)	10	10	35
Feeder Road rehabilitation (m2) - 40Km length and 5meters width	0	0	200,000

Notes:  
(a)

Improved agronomic practices include improved agronomic practices, improved nutrient management, no tillage/residue management, water management, and manure application

### Sensitivity Analysis

10. The sensitivity analysis will assess the impact of a change in adoption rates of improved crop management practices to 70 percent and 50 percent (from current 100 percent). Also changes in moisture regime due to climate change from moist to wet or dry is assessed. The results are shown in table 7.4 and demonstrate that the project remains a net carbon sink for most of the changes. Improved agronomic practices, Ponds occupation time and different soil carbon stocks variations will also be included on the sensitivity analysis for the final version.

**Table 7.4. Results of sensitivity analysis.**

	Results	
	Final Balance, tCO <sub>2</sub> eq	Change (%)
<b>Initial results</b>	<b>-20,735,573</b>	-
<b>Change in moisture regime:</b>		
<b>Dry moisture regime</b>	<b>-17,883,121</b>	+14%
<b>Wet moisture regime</b>	<b>-21,871,970</b>	-5%



**Figure 7.2: Total with and without Project Balance**

