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June 14, 2019

Closing Date: Wednesday, July 3, 2019 at 6:00 p.m.

FROM: Vice President and Corporate Secretary

Mozambique - Agriculture and Natural Resources Landscapes Management Project (SUSTENTA)

Additional Financing

Project Paper

Attached is the Project Paper regarding a proposed additional grant from the Crisis Response Window (CRW) to Mozambique for the Agriculture and Natural Resources Landscapes Management Project (SUSTENTA) (IDA/R2019-0218/1), which is being processed on an absence-of-objection basis.

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The World Bank

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Report No: PAD3197

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT PAPER

ON A

PROPOSED ADDITIONAL GRANT

IN THE AMOUNT OF SDR43.3 MILLION
(US$60 MILLION EQUIVALENT)

IN CRISIS RESPONSE WINDOW RESOURCES

TO THE

REPUBLIC OF MOZAMBIQUE

FOR

THE AGRICULTURE AND NATURAL RESOURCES LANDSCAPE MANAGEMENT PROJECT

June 12, 2019

Agriculture Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2019)

Currency Unit = US$

US$1 = SDR 0,721
US$1 = 63.45 MZN

FISCAL YEAR
January 1 - December 31

Regional Vice President: Hafez M. H. Ghanem

Country Director: Mark R. Lundell

Senior Global Practice Director: Ede Jorge Ijjasz-Vasquez, Simeon Ehui

Practice Manager: Dina Umali-Deininger

Task Team Leader(s): Norman Bentley Piccioni, Pedro Arlindo, Andre Aquino

ABBREVIATIONS AND ACRONYMS

AF	Additional Financing
ANE	National Roads Administration (*Administração Nacional de Estradas*)
AT	Administrative Tribunal
BFP	Benefit Financing Plans
BPM	Best Practice Manual
CDC	Community Delimitation Certificate (*Certificado de Delimitação Comunitário*)
CERC	Contingency Emergency Response Component
CPF	Country Partnership Framework
CPS	Country Partnership Strategy
CRW	Crisis Response Window
DINAT	National Directorate for Land (in MITADER)
DLIs	Disbursement-Linked Indicators
DNAF	National Directorate of Forests (*Direcção Nacional de Florestas*)
DUAT	Land Use and Benefit Right (*Direito de Uso e Aproveitamento da Terra*)
EBCR	Economic Benefit Cost Ratio
EFA	Economic and Financial Analysis
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FI	Financial Intermediaries
FIP	Forest Investment Program
FM	Financial Management
FNDS	National Sustainable Development Fund (*Fundo Nacional de Desenvolvimento Sustentável*)
FSP	Financial Service Provider
GBV	Gender Based Violence
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoM	Government of Mozambique
GRADE	Global Rapid Post-Disaster Damage Estimation
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
IAASB	International Auditing and Assurance Standards Board
IBRD	International Bank for Reconstruction and Development
ICT	Information Communication Technology
IDA	International Development Association
IFAC	International Federation of Accountants
IFC	International Finance Corporation
IIAM	Agricultural Research Institute of Mozambique (*Instituto de Investigação Agrária de Moçambique*)
IRM	Immediate Response Mechanism
IRRIGA	Smallholder Irrigated Agriculture and Market Access Project
INGC	National Disaster Management Institute

INIR	National Irrigation Institute (*Instituto Nacional de Irrigação*)
IPCC	Intergovernmental Panel on Climate Change
ISA	International Standards on Auditing
ISR	Implementation Status and Results Report
LTR	Land Tenure Rights
M&E	Monitoring and Evaluation
MASA	Ministry of Agriculture and Food Security
MIC	Ministry of Industry and Commerce
MITADER	Ministry of Land, Environment and Rural Development
MOZBio	Conservation Areas for Biodiversity and Development Project
MOZFIP	Mozambique Forest Investment Project
MOZLAND	Mozambique Land Preparation Project
SMEs	Small and Medium Enterprises
MTR	Mid Term Review
NIB	National Investment Bank
NPF	New Procurement Framework
NRM	Natural Resources Management
PDO	Project Development Objective
PEDSA	Strategic Plan for Agricultural Development (*Plano Estratégico de Desenvolvimento do Sector Agrário*)
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PMT	Project Management Team
PNISA	National Agriculture Investment Plan (*Plano Nacional de Investimentos para o Sector Agrário em Moçambique*)
PPR	Procurement Post Review
PPSD	Project Procurement Strategy for Development
PROIRRI	Sustainable Irrigation Development Project
RAPs	Resettlement Action Plans
REDD+	Reducing emissions from deforestation and forest degradation, Conservation of forest carbon stocks, Sustainable management of forest, and Enhancement of forest carbon stocks in developing countries
ROAM	Restoration Opportunities Assessment Methodology
RPF	Resettlement Policy Framework
SCD	Systematic Country Diagnosis
SF	Smallholder Farmer
SDGs	Sustainable Development Goals
SEA	Sexual Exploitation and Abuse
SECF	Small Emerging Commercial Farmer
SIDA	Swedish International Development Cooperation
SIGIT	Land Information Management System (*Sistema de Gestão de Informação sobre a Terra*)
SoP	Series of Projects
SP	Service Provider
SPGC	Provincial Services for Geography and Cadaster – Provincial Land Management and Administration (*Serviço Provincial de Geografia e Cadastro*)

TA	Technical Assistance
UGFI	International Fund Management Unit (*Unidade de Gestão de Fundos Internacionais*)
USAID	United States Agency for International Development
VCD	Value Chain Development
VCs	Value Chains
WB	World Bank

Mozambique

Additional Financing to the Agriculture and Natural Resources Landscape Management Project (SUSTENTA)

TABLE OF CONTENTS

BASIC INFORMATION – PARENT (Mozambique Agriculture and Natural Resources Landscape Management Project - P149620)

Country	Product Line	Team Leader(s)		
Mozambique	IBRD/IDA	Pedro Arlindo		
Project ID	**Financing Instrument**	**Resp CC**	**Req CC**	**Practice Area (Lead)**
P149620	Investment Project Financing	GFA07 (9244)	AFCS2 (5547)	Agriculture

Implementing Agency: Ministry for Land, Environment and Rural Development

Is this a regionally tagged project?	

Bank/IFC Collaboration

No

Approval Date	Closing Date		Original Environmental Assessment Category	Current EA Category
30-Jun-2016	31-Oct-2021		Partial Assessment (B)	Partial Assessment (B)

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach [MPA]	[ ] Contingent Emergency Response Component (CERC)
[✓] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-Linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a Non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made disaster
[ ] Alternate Procurement Arrangements (APA)	

Development Objective(s)

The project development objective is to integrate rural households into sustainable agriculture and forest-based value chains in the Project area and, in the event of an Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency.

Ratings (from Parent ISR)

	Implementation				Latest ISR
	26-Oct-2016	28-Apr-2017	14-Nov-2017	23-May-2018	19-Dec-2018
Progress towards achievement of PDO	S	S	S	S	S
Overall Implementation Progress (IP)	S	S	S	S	S
Overall Safeguards Rating	S	S	MS	MS	MS
Overall Risk	S	S	S	S	S

BASIC INFORMATION – ADDITIONAL FINANCING (Additional Financing to the Agriculture and Natural Resources Landscapes Management Project (SUSTENTA) - P168940)

Project ID	Project Name	Additional Financing Type	Urgent Need or Capacity Constraints
P168940	Additional Financing to the Agriculture and Natural Resources Landscapes Management Project (SUSTENTA)	Restructuring, Scale Up	Yes
Financing instrument	Product line	Approval Date	
Investment Project Financing	IBRD/IDA	July 3 -2019	
Projected Date of Full	Bank/IFC Collaboration	Joint Level	

Disbursement 24-Feb-2024	Yes	Complementary or Interdependent project requiring active coordination	
Is this a regionally tagged project? No			

Financing & Implementation Modalities

[✓] Series of Projects (SOP)	[✓] Fragile State(s)
[ ] Disbursement-Linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a Non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[✓] Responding to Natural or Man-made disaster
[ ] Alternate Procurement Arrangements (APA)	
[✓] Contingent Emergency Response Component (CERC)	

Disbursement Summary (from Parent ISR)

Source of Funds	Net Commitments	Total Disbursed	Remaining Balance	Disbursed
IBRD				%
IDA	40.00	34.96	5.04	87.4 %
Grants				%

PROJECT FINANCING DATA – ADDITIONAL FINANCING (Additional Financing to the Agriculture and Natural Resources Landscapes Management Project (SUSTENTA) - P168940)

FINANCING DATA (US$, Millions)

SUMMARY (Total Financing)

	Current Financing	Proposed Additional Financing	Total Proposed Financing
Total Project Cost	40.00	60.00	100.00
Total Financing	40.00	60.00	100.00
CRW		60.00	60.00
Financing Gap	0.00	0.00	0.00

DETAILS - Additional Financing

World Bank Group Financing

International Development Association (IDA)	60.00
IDA Credit	60.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
National PBA	40.00	0.00	0.00	40.00
CRW	0.00	60.00	0.00	60.00
Total	**40.00**	**0.00**	**0.00**	**100.00**

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any other Policy waiver(s)?

[ ] Yes [✓] No

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Environment & Natural Resources

Climate Change and Disaster Screening

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

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Norman Bentley Piccioni	Team Leader (ADM Responsible)		GFA07
Pedro Arlindo	Team Leader		GFA07
Andre Rodrigues de Aquino	Team Leader	Sr. Natural Resources Management Specialist	GENA3
Amos Martinho Malate	Procurement Specialist (ADM Responsible)	Procurement Specialist	GGOPF
Joao Tinga	Financial Management Specialist (ADM Responsible)	Sr. Financial Management Specialist	GGOAC
Aniceto Timoteo Bila	Team Member	Senior Irrigation Specialist	GFA07
Bruno Alberto Nhancale	Environmental Specialist	Environment Specialist	GENA3
Gustavo de Montalvao G. Abath	Team Member	Consultant	GFA07

Aline Alves Sanchez	Team Member	Consultant	GFA07
Joao Moura Estevao MarquesdaFonseca	Team Member	Rural Development Specialist	GENA3
Julian Casal	Team Member	Financing Sp	GFCAS
Ramon Ernesto Arias Moncada	Team Member		GFA04
Marina Mwanga	Team Member	Team Assistance	AFCS2
Amelia Jose Cumbi	Team Member	Team Assistance	

Extended Team

Name	Title	Organization	Location
Barbara Jordan-Vicente	Economist	FAO	
Frank Hollinger	Economist	FAO	
Edi Bruni	Agronomist	WB	

I. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

A. Original Project Objectives and Design

1. The original project, the Agriculture and Natural Resources Landscape Management Project – (P149620) for a total of US$40 million (IDA grant in the amount of US$26 million and an IDA credit in the amount of US$ 14 million), was approved on June 30, 2016 and signed on August 26, 2016. The project closing date is October 31, 2021. The project was the first of a series of two projects. The Project Development Objective (PDO) is to integrate rural households into sustainable agriculture and forest-based value chains in the Project Area and, in the event of an eligible crisis or emergency, to provide immediate and effective response to said eligible crisis or emergency. The project includes four components: (i) Agriculture and Forest-Based Value Chain Development; (ii) Securing Land Tenure Rights and Increasing Natural Resources Resilience; (iii) Project Coordination and Management; and (iv) Contingency Emergency Response.

2. The first component supports the integration of smallholder farmers (SFs) and Small Emerging Commercial Farmers (SECF) in key agriculture and forest-based value chains (VCs) in the Project area by providing training and Technical Assistance (TA), and access to finance to SECFs and other key rural Small and Medium Enterprises (SMEs). The component also supports rehabilitation of rural roads linking to markets and small-scale irrigation schemes. The second component supports land tenure regularization, improvement of land administration services, strengthening of the capacity to manage integrated landscapes and restoration of natural habitats that are critical for the VCs in the landscape. The third component supports the project implementation unit *Fundo Nacional de Desenvolvimento Sustentável* (FNDS) at central and provincial level to oversee the implementation of the Project coordination and management, including fiduciary and safeguards management, monitoring and evaluation (M&E), and communications. A fourth component with no financial allocation is designed to support immediate response to an eligible crisis or emergency.

3. The Project as originally designed spans 10 contiguous districts in the provinces of Nampula and Zambézia. The Project area was identified based on a combination of factors: poverty incidence, agriculture and forestry production patterns, potential in preselected VCs, and access to water. The Project area is embedded in the high-potential growth poles/growth corridor (Nacala Development Corridor) and is based on the principle of implementing Project activities using administrative units (districts) with similar agro-ecological features (landscapes approach).

B. Performance of Original Project

4. The Agriculture and Natural Resources Landscape Management Project, known in country as SUSTENTA, is increasingly popular in Mozambique, and the Ministry of Land, Environment and Rural Development (MITADER) has pledged to mainstream the Project approach into the national rural development program. With strong commitment by the Mozambican government, at central and provincial levels, progress towards achieving the PDO and overall Implementation Progress (IP) are satisfactory.

5. The overwhelming majority of the population of Mozambique living in rural areas practices subsistence farming, estimated to contribute to about 82 percent of the rural economy. SUSTENTA addresses family farmers needs through a scalable model whereby SFs – farmers with less than seven hectares (ha) of land who use traditional varieties and low level of inputs and technical assistance) are integrated into the market through a SECF – an innovative farmer with some integration to the market with seven to 50 ha of land. SECFs are the entry point of the Project technical and financial assistance which is carried out based on SECFs business plans, which are approved after a robust screening process. Each SECF business plan brings together between 100 to 200 SFs (either directly or through contact farmers who in turn work with SFs). The Project also supports larger business plans for Agribusiness (SMEs) along the value chain for value addition, marketing, or both as follows:

SFs → SECFs → SMEs (Value addition, Market).

6. Out of a target of 100 SECF business plans to be financed by the end of the Project, 77 have been approved (data as of December 31, 2018), and 31 are well advanced in the implementation cycle. Three SME business plans have been approved and seven are being evaluated out of an end-of-project target of 25. Overall in the agricultural year 2017/18 SUSTENTA reached out to approximately 32,000 small producers (about 6,500 families, of which 1,200 are led by women) who received productivity kits (inputs), technical assistance, training and support to market access through SECFs. During the same period, the estimated incremental value of transactions among SFs, SECFs and markets is of 125 million MT (US$2M). Since its inception, SUSTENTA has built five small bridges and rehabilitated approximately 100 km of rural roads, and prepared studies for the rehabilitation of about 200 ha of irrigated land, as well as detailed watershed plans for 10 watersheds in the project area. The Project disbursement rate is at 87.4 percent, well above the amount forecasted at appraisal. The actual and committed expenditures combined amount to 99 percent of the total IDA allocation as of June 2019.

7. The Mid Term Review (MTR)[1] carried out in June 2018 provided lessons learnt and opportunities for improvement which are being reflected in the proposed restructuring under the AF, with a specific focus on building resilience. Smallholder agriculture development is a priority item in the Government's agenda. The Government of Mozambique through its key ministries, particularly MITADER, Agriculture (MASA) and Industry and Commerce (MIC) aims to support domestic smallholder agriculture through a landscape management approach, championed under SUSTENTA. More broadly, SUSTENTA contributes to the overall Strategic Plan for Agricultural Development (PEDSA 2010–2019) and its National Agriculture Investment Plan (PNISA), and to Mozambique's National Sustainable Development Program. SUSTENTA is strongly linked to other ongoing or planned World Bank Group operations and is an example of collaboration across practices by bringing together the Agriculture, the Environment and Natural Resources Management (NRM), and the Finance and Innovation Global Practices, and building on interventions in agriculture, NRM, and infrastructure. Elements of SUSTENTA's approach are also being scaled up through other World Bank-financed projects, including the Conservation Areas for Biodiversity and Development Project (MOZBIO 2-P166802), the Mozambique Forest Investment Project (MOZFIP-P160033), the Smallholder Irrigated Agriculture and

[1] The last full Implementation Status Report (ISR) was archived in the Operations Portal on December 28, 2018. An interim ISR has been filed on June 11, 2019 and it will be finalized in July, 2019 to incorporate the proposed revised indicators.

Market Access Project (IRRIGA-P164431), and the Mozambique Land Preparation Project (MOZLAND-P164551). The flexible nature of the Project makes it particularly suitable to respond to unforeseen post-emergency recovery needs (see below).

C. Rationale for Additional Financing

8. **Regional impact of Tropical Cyclone Idai:** On March 15, 2019, Cyclone Idai and subsequent flooding and landslides affected Malawi, Mozambique and Zimbabwe, wreaking severe repercussions on an already fragile part of southern Africa and raising the prospects of significant cross-border impact. The cyclone affected around two million people across the three countries and left a trail of destruction with many people dead, missing or displaced, as well as crops and livestock lost, and critical infrastructure destroyed. Regional effects are already being felt through trade disruptions, disease outbreaks and rising outmigration. Notably, the cyclone's impact on the important Beira trade corridor interrupted supplies of essential goods such as fuel, wheat and fertilizers, affecting already volatile prices and exchange rates (particularly in Zimbabwe), and impacting trade revenue. The Beira corridor is a trading route for countries including Mozambique, Malawi, Zambia and Zimbabwe that links hinterland countries to the ocean through the port of Beira. Cyclone winds and floods destroyed or damaged critical infrastructure such as roads and bridges, as well as buildings in Beira used to facilitate trade, such as warehouses. The scale of the cyclone and cumulative effects from preceding shocks on an already fragile region could also lead to rising outmigration—to illustrate, about 0.5 million Zimbabweans migrated to neighboring countries as a direct consequence of the droughts in 2002 and 2004, and historical evidence suggests that this is likely to cause severe socioeconomic strain in receiving countries. With the Ministry of Health in Mozambique declaring a cholera outbreak on March 27, 2019 and over 4,000 cases of cholera recorded along the corridor as of May 1, 2019, a coordinated regional effort to control the spread of diseases is critical. Mounting an effective response and addressing the spillover effects of this crisis requires an integrated regional intervention from the World Bank. This operation is part of the World Bank's broader regional package which comprises a set of operations totaling some US$700 million in IDA resources – including up to US$545 million from the IDA Crisis Response Window (CRW) – to support the cyclone response in Malawi, Mozambique and Zimbabwe.

9. **Impact in Mozambique of Tropical Cyclone Idai**: Tropical Cyclone Idai made landfall over Mozambique's central region, leading to torrential rains, strong winds directly affecting over 1.5 million people[2], with 1.85 million people in need of humanitarian aid[3]. Idai's U-shaped path passed over Zambezia, Nampula and Tete provinces in the first week of March before coming back through Sofala, Manica and Tete during the end of the second week. The Cyclone caused massive destruction resulting from both flooding and very strong winds. As of April 25, 2019, 603 deaths and more than 1,600 injuries had been reported by the Government across the country. Cyclone Idai made landfall in Mozambique near the city of Beira, in the Sofala province. The city, Mozambique's fourth largest, with a population of 533,000[4], and its surrounding areas were hit hard by both cyclone-level wind speeds of over 175 km/h

[2] INGC, Cyclone Idai Situational Update (25 April 2019)
[3] UN Flash Appeal, 26 March 2019
[4] National Institute of Statistics, Disclosure of Preliminary Results of the IV General Census of Population and Housing 2017

as well as torrential rainfall and storm surge. Sofala accounts for 70 percent of total damages to buildings and infrastructure caused by Idai. The UN satellite agency estimated that more than 2,000 square kilometers of land were under water due to the cyclone, damaging 13 percent of the country's agricultural lands, with 715,000 ha of crops recorded as destroyed[5]. Non-agricultural businesses suffered damages to facilities and equipment, as well as demand and supply shocks in the aftermath of the shock. The cyclone and consequent floods have wiped out or damaged a large share of the core infrastructure including roads and bridges, electricity and water networks, hospitals, schools and telecommunication. The events negatively affected many people's lives, livelihoods, and socioeconomic infrastructure which will have longstanding impacts. An estimated 715,000 ha of agricultural land were destroyed, threatening the livelihoods of 500,000 food-producing families. The Cyclone hit right before annual harvest, worsening the impacts of the damages. Total cost of agricultural damages is estimated at up to US$258 million. Annex 1 provides a detailed overview of the impact and immediate response.

10. Six weeks after Cyclone Idai, on the evening of April 25, 2019, **Tropical Cyclone Kenneth** made landfall in the Province of Cabo Delgado, Northern Mozambique. Upon landfall the category 4 cyclone brought winds of up to 220 km/h, causing massive destruction to homes and infrastructure in the districts of Ibo, Macomia and Quissanga. Kenneth slowly moved south towards the city of Pemba, with a population 200,000, causing major flooding in its path. As of May 7, 2019, the National Disaster Management Institute (INGC) was reporting that over 250,000 people had been affected, including 45 casualties, 45,000 houses damaged or destroyed, 477 classrooms damaged, and 83,000 ha of crops affected.

11. In the meantime, on April 5, 2019 the Government requested activation of the IDA Immediate Response Mechanism and on April 18, 2019, the Africa Region Vice-presidency approved an amount of US$55 million, including a reallocation of US$10 million to the Contingent Emergency Response Component (CERC) of the SUSTENTA Project to provide support to an agricultural recovery plan to restore livelihoods in the country's central provinces in the aftermath of Cyclone Idai. The component has been fully disbursed through a contract with the Food and Agriculture Organization of the United Nations which is expected to be completed in October 2019. The effort aims to reach over 150,000 farming and pastoral households in the provinces of Manica, Sofala, Tete and Zambézia, which suffered some of the heaviest fallout after the Cyclone. The beneficiaries are among Mozambique's most vulnerable households.

II. DESCRIPTION OF ADDITIONAL FINANCING

12. The AF seeks a US$60 million grant from the Crisis Response Window (CRW) to: (i) scale up the original project by extending its geographical coverage to support the recovery efforts in the cyclone affected areas and reaching out to an increased number of beneficiaries; and (ii) replenish the US$10 million reallocated to the Contingency Emergency Response Component (CERC) of the parent project following the activation of the IDA Immediate Response Mechanism (IRM).

[5] INGC, Cyclone Idai Situational Update (April 4, 2019)

13. The PDO and the project components will not change with respect to the original project. The key changes proposed are the following: (i) geographical coverage will be extended to other districts in Nampula and Zambezia, and the provinces of Sofala, Manica and Cabo Delgado as needed. (ii) the targeted number of business plans to be financed and implemented will increase; (iii) beneficiary eligibility criteria, funding windows, and operations will be updated based on recovery needs; (iv) the restoration area target value will increase, while land delimitation activities will be limited to the ongoing activities under the parent project, and any additional activity will be transferred to the recently approved MOZLAND project (P164551); (v) target values for small road infrastructure improvement will increase, while no additional irrigation infrastructure works will be carried out, as they can continue to be funded and carried out through IRRIGA (P164431); (vi) the results framework will be adjusted to reflect these changes; and (vii) the closing date of the Project will be extended by two years to accommodate the increase in activities and targets. This project period extension is deemed sufficient in view of the good implementation progress and capacity to date. These changes are fully consistent with and aligned with government priorities and the post-cyclone recovery response, the World Bank Country Partnership Framework (CPF report number 114710 published on April 27, 2017) and the World Bank short and longer-term approach to help Mozambique recover from the impacts of Cyclones Idai and Kenneth, and to increase its resilience to floods and cyclones. They also consider lessons learnt from the first two years of implementation and good global practices in similar projects.

Component 1: Agriculture and Forest-Based Value Chain Development (Original amount: US$21.0 million equivalent, Additional Financing: US$37.0 million equivalent).

14. This component will be scaled up to increase the number of business plans for SECFs and SMEs, and investments in infrastructure in the expanded geographic area. CRW resources will be targeted to support SMEs, SECFs and SFs in the cyclone affected areas and to rehabilitate damaged rural infrastructure. Under the AF, the number of SME business plans will increase from 25 to 50 and the number of SECF business plans will increase from 100 to 250. Funding modalities will include special windows to support affected young farmers (junior SECFs, under 35 years old), startups and businesses led by local communities (community-based organizations, such as associations, cooperatives, etc.). Business plans would be submitted following calls for proposals, and their screening would be against transparent criteria of rebuilding with resilience, innovation, viability, additionality and impact, spelled out in the Project Implementation Manual (PIM) and communicated to potential beneficiaries. Financing and support will prioritize value chains along revised thematic areas while allowing for greater flexibility for potential business opportunities. The business plans' financial flow and procurement modalities have been revised to empower beneficiaries in their capacity to manage funds and carry out procurement directly, with support from the implementing agency. Investment in spot improvements for road infrastructure would be scaled up from a target of 260 km to 1,050 km rehabilitated. Irrigation infrastructure rehabilitation will be limited to 250 ha, as planned under the parent project. No additional irrigation rehabilitation will be financed under the AF, as further scaling up will be undertaken by the recently approved IRRIGA project (P164431).

Component 2: Securing Land Tenure Rights and Increasing Natural Resources Resilience (Original amount: US$14.0 million equivalent, Additional Financing: US$8.0 equivalent).

15. This component will be refocused to the activities on increasing natural resource resilience, specifically supporting an additional 400 ha (original 1,600 ha, new target 2,000 ha) of restored land under revised methodology and principles[6]: (i) areas to be restored and geographical coverage of the business plans would need to match to allow for maximum synergy; and (ii) restoration plans would have to be ready prior to starting implementation of the business plans. Land tenure regularization will be limited to completing the planned land certification activities under the parent project. While no new land certification activities will be financed by the AF, further scaling up will be undertaken by the recently approved MOZLAND project (P164551).

Component 3: Project Coordination and Management (Original amount: US$5.0 million equivalent, Additional Financing: US$5.0 million equivalent).

16. The AF will provide incremental resources to oversee the implementation of the original and expanded Project areas, comprising support for project coordination and management, fiduciary and safeguards management, monitoring and evaluation (M&E), and communications. While funds are broadly earmarked for the implementation of the Project, they also support overall FNDS capacity strengthening, with impact on the overall portfolio of projects financed by the World Bank.

Component 4: Contingency Emergency Response (Original amount US$0.0 million, Additional Financing: US$ 10.0 million equivalent).

17. The component was triggered as per the original Project to provide immediate response to an eligible crisis or emergency. The amount of US$10 million was drawn from uncommitted funds from other categories through a recent restructuring and allocated to this component for immediate relief response and it has been entirely disbursed. The amount provided was mostly for seeds for short cycle varieties taking advantage of residual moisture after the flooding. Table 1 below provides the proposed allocation of additional resources by component.

Table 1: Proposed Allocation of CRW AF Resources per Component

Components	Original Allocation IDA Credit 5855-MZ/ IDA Grant D1190-MZ (US$ Million)	Additional Financing (CRW US$ Million)
1. Agriculture and Forest-Based Value Chain Development	21.00	37,00
2. Securing Land Tenure Rights and Increasing Natural Resources Resilience	14.00	8.00
3. Coordination and Project Management	5.00	5.00
4. Contingency Emergency Response	0.00	10.00
Total	40.00	60.00

[6] More advanced methodology which resulted in revised intervention principles. Such criteria have changed since the original project and are the basis for activities related to the proposed additional 400 ha.

18. Project activities have been designed to offer opportunities for women by addressing existing gaps in the recovery efforts: (i) under component 1, the guidelines for the selection process for investments on value chains development provides for higher priority to proposals which have women as main beneficiaries. To this aim, (i) applicants are requested to include estimated gender disaggregated data of their expected beneficiaries in their proposal; (ii) some complementary interventions that promote climate-smart agriculture practices specifically aimed at women; (iii) intensive awareness campaigns on associated benefits to ensure that women's participation is promoted and documented; and (iv) support land tenure regularization by issuance of certificates of land use and benefit right (DUATs) and certificates of Community Land Delimitation (CDCs).

19. The Africa Region Guidance to Managers and Task Teams on Managing Project Closing Date Extensions have been met. Specifically: (i) the project objectives continue to be achievable; (ii) the performance of the Recipient and other project implementing agencies is satisfactory; and (iii) the Recipient has prepared a specific action plan acceptable to the World Bank to complete the Project. The proposed changes are consistent with the CPF for Mozambique and the World Bank's emergency support, and it remains relevant to contributing towards reducing extreme poverty and boosting shared prosperity.

III. KEY RISKS

20. **The overall risk rating of the AF is Substantial.** The risk for Political and Governance, Macroeconomic, Environment and Social, Stakeholders, and Other (Land Tenure Regularization) remain Substantial, while the risk for Institutional Capacity for Implementation and Sustainability, and Technical Design of Project have been changed from Substantial under the Parent Project to Moderate under the AF. This is based on the fact that when the project was designed it was a new concept and it was believed to be likely too complex for the country settings. After two years of field implementation the technical design proved to be working, as demonstrated by the high level of disbursement and achievement, so these areas of risk were re-assessed accordingly.

21. **Political and governance** – Substantial. Mozambique remains susceptible to further outbreaks of political and social conflict, though a return to full-scale civil war is unlikely. To mitigate potential political and governance risks, the Project will sequence interventions to consider constraints on the ground which may affect the effective and timely achievement of the project development objectives.

22. **Macroeconomic** – Substantial. The increase in debt levels, the depreciation of the Mozambican Metical, and external shocks (such as commodity prices) have heightened Mozambique's macroeconomic vulnerability and exposure to fiscal risk. The fiscal impact of cyclones Idai and Kenneth is still evolving, but it is clear that there will be significant fiscal pressures for Mozambique. Besides the large humanitarian relief and reconstruction needs that will drive increased public expenditure, public revenue will likely be affected as the affected provinces are important economic centers, with Sofala, Manica and Zambézia together contributing to 5 percent of annual fiscal revenues, and Cabo Delgado seeing important international investments in the energy sector.

23. **Environment and Social** – Substantial. SUSTENTA safeguard performance has been consistently rated Moderately Satisfactory by the World Bank (WB) team in the last three ISRs. This is because the original financing started many project activities, particularly civil works (rehabilitation of small stretches of roads and bridges) and agribusinesses (small grant schemes for commercial emerging agricultures). However, some of these contracts were previously awarded without a binding Environmental and Social Management Plan (ESMP) or Best Practice Manual (BPM), respectively, leading to the safeguards rating being downgraded to Moderate Satisfactory in previous missions. Since then, the WB team has been supporting and supervising the Client more closely to improve compliance and ensure full implementation of the ESMF. This has led to much progress: (i) the regularization of contracts without ESMP, (ii) preparation of a generic BPM for emerging agriculture, Land Protocol and Protocol for Preventing Critical Habitat Conversion; (iii) capacity building of 30 rural extensionists on safeguards; (iv) setting up of an up-to-date online share folder to track progress on safeguards documents developed, (v) submission of timely quarterly reports to the World Bank, (vi) Client holding internal coordination meetings and safeguard trainings as well as regular meetings with the WB. Nevertheless, there is still need to further strengthen the client capacity to monitor the ESMP and BPM implementation by the contractors, service providers and beneficiaries. Based on the above, the WB team has maintained unchanged the rating as Moderate Satisfactory, despite the notable progress made. However, in the last few months, the WB team has been assessing the fulfilment of the monitoring processes foreseen under the various ESMPs and BPMs, including adequate and timely filing of the non-conformities and works inspection forms and follow up activities. The team has a favorable opinion, but is waiting for the next review in July to validate these findings and upgrade the SUSTENTA safeguard performance to satisfactory.

24. The AF will scale up and expand some activities of the parent project such as road maintenance and improvements from 260 km to 1,050 km (including rehabilitation of existing feeder roads damaged by the Cyclone), SECF business plans from 100 to 250 and SME's business plans from 25 to 50. By doing so, it will cumulatively add some negative environmental impacts from the previous phase (e.g. area of vegetation being cleared; potential contamination from pesticides and fertilizers). As such, the AF considers and reinforces mitigation measures that are proportionate and adequate to the scale of anticipated cumulative risks and impacts. These responses include increasing the number of Rural Extension agents that will work on safeguards, expanding the coverage area of the Grievance Redress Mechanism (GRM), restoring an additional 400 ha of degraded land and increasing by 6,000 ha the land area that will be covered by sustainable landscape management practices.

25. **Stakeholders –** Substantial. The integrated landscape management approach promoted under the project is new to many stakeholders. Not only does it require a new multi-sectorial mind-set, but also effective functioning of recently established key institutions to enable overcoming longstanding institutional cultures that reflect decades of vertical separation between sectors. While MITADER has developed and implemented a strong communication campaign, the Project is still relatively new, especially in the new proposed districts and provinces.

26. **Other** - Substantial. **Land tenure regularization.** The Project will limit its support to the issuance of 150,000 certificates of land use and benefit right (DUATs) and 270 Certificates of Community Land Delimitation (CDCs) which started prior to agreeing that any further activity related to land tenure

regularization would be taken over by the MOZLAND project. The major risks in this process are the low capacity of the provincial and district offices, and the unreliability of the registration system. However, up to present, the activities have been implemented at a satisfactory pace, and no additional activity will be conducted through this Project.

27. **Climate and Disaster Risk Assessment.** The Climate Risk Screening Report established that exposure to the current and future climate and geographical hazards will pose a moderate risk to the Project. Mozambique faces an array of natural hazards, the most prominent being flooding, droughts, and cyclones. With more than 2,700 kilometers (km) of coastline, nine international river basins for most of which Mozambique is on the downstream side, a high dependence on rainfed agricultural yields, a high level of poverty, and an inadequate rural infrastructure, make Mozambique extremely sensitive to such exogenous shocks. Project activities explicitly address these vulnerabilities by providing diversified livelihood alternatives to enhance adaptation and resilience, reduce over dependence on natural resources, and mitigate greenhouse gas (GHG) emissions from agriculture, and other land use.

28. **Adaptation and Mitigation Co-benefits.** Activities are designed to contribute to increasing climate adaptation and mitigation co-benefits. The Project's integrated landscape management approach embodies many of the new Sustainable Development Goals (SDGs) and is aligned to the Africa Climate Business Plan. The Project directly contributes to the Zambezia Emissions Reductions Payment Project (P164524), the first initiative in Mozambique to provide climate performance-based payments against verified reductions of GHG emissions. The Project enhances multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology, and financial resources in the targeted landscape while encouraging and promoting effective public, public-private, and civil society partnerships (SDG-17). The Project promotes the sustainable management of forests, the reversal of land degradation, climate change mitigation measures and the increase in the resilience of the rural population to climate change (SDG-15 and SDG-13). Overall, the Project's interventions will contribute to poverty reduction and inclusive and sustainable economic growth (SDG-1 and SDG-8).

IV. APPRAISAL SUMMARY

A. Economic and Financial Analysis

29. The Economic analysis was carried out without factoring in the damage and projected losses from the cyclones since the relative data and information are still being fully finalized. Nevertheless, it is considered that the project will help mitigate these losses, and in fact increase productivity and gross margins while also increasing the marketable surplus of smallholder farms. Tables in Annex 5 show the expected changes in average gross margins for different crops and farms (excluding post-harvest net benefits and value of improved carbon balance). Revenue increases are expected mainly from increased productivities per hectare and in some cases increased prices due to improved quality and access to different markets. In general, to achieve higher yields, farmers will increase costs of labor, fertilizer,

chemicals, tools, mechanization, and irrigation. Gross margins on smallholder farms are lower and typically without fertilizer use, irrigation, and mechanization. Farmers using medium technology/marketed-oriented farmers (e.g. quality seeds, fertilizers, chemicals, mechanization, and irrigation) are expected to see higher increases in gross margins per hectare –between 22 percent and 183 percent. In this analysis, it is assumed that project interventions will help smallholder farmers increase productivity to the level where more market-oriented farmers are without project intervention. Due to the increase in productivity, the share of production that is sold increases, mainly for smallholder farms.

30. The Economic Net Present Value (ENPV) is US$ 76 million (MZN 4.7 billion) discounted at six percent over a 50-year period. This generates an Economic Benefit Cost Ratio (EBCR) of 2.7 percent and an Economic Internal rate of Return (IRR) of 19.2 percent with a payback period of nine years. The Financial IRR is 16.4 percent. Over a 20-year period, the ENPV is US$37 million (MZN 3.3 billion) and the Economic IRR is equal to 18.0 percent. A sensitivity analysis on various key parameters shows the robustness of the project results. Once the impact of the cyclones is taken into account, benefits are even greater. Adding economic value of the carbon balance, the Economic Net Present Value (ENPV) increases to US$100.4 million (MZN 6.2 billion) and the Economic IRR to 23.6 percent over a 50 year period. Over 20 years, the ENPV is US$53 million (MZN 3.3 billion) and the Economic IRR is equal to 22.9 percent.

B. Technical

31. The original Project incorporates elements that make it conceptually innovative, while ensuring a technically sound approach, and the AF will scale up in a modular way the same design and approach with some adjustments, mostly to support recovery activities for affected farmers and enterprises. The design is supported by solid background information, two years of implementation that provide lessons learned, and recent advisory work related to agricultural development and NRM in Mozambique, especially on value chains development.

32. Technical soundness is also supported by the synergy with other interventions in the project area, the institutional opportunity generated by the creation of MITADER and the Government of Mozambique's (GoM) commitment to promote decentralization. Furthermore, the design is fully aligned with the GoM's policies, and through its integrated components, considers the potential needs and risks of the Project's area and its rural population.

33. The VCs to be supported over the next five years by the operation were selected based on the analysis of the 15 priority VCs defined in the PEDSA, the Government's strategy for the agriculture sector. These VCs along with forest-related VCs were reviewed, assessed, and selected using the following criteria: (i) growth potential; (ii) success in existing market opportunities and competitiveness in domestic and export markets; (iii) potential for scaling up and impact on poverty reduction among target groups; (iv) change potential, including the existence of lead firms with linkages with smallholders; and (v) comparative potential for higher returns to investment.

34. The proposed techniques for degraded land restoration have been tested in Mozambique, but at a small scale. Restoration techniques to be used will include assisted natural regeneration, enhanced planting, and commercial planting of natural species with a resilience-building approach. The proposed

approach for promoting integrated landscape management follows years of practice, and experience from the implementation of the original project and MOZFIP (P160033).

35. The fit-for-purpose land administration approach has proven its efficiency in Land Tenure Rights (LTR) in other African countries. A training on this approach was recently given to the National Directorate for Land (*Direcção Nacional de Terras*, DINAT) staff and management. While no new activities related to LTR will be implemented under the AF (because of the approval of the MOZLAND project (P164551), also implemented by FNDS), the Project will seek to build on the existing methodology and update it in line with the recent training and modern technologies for the activities that were already started and remain to be completed.

C. Financial Management

36. The Project Management Team (PMT) at FNDS will also have fiduciary responsibility for the implementation of the proposed additional financing. The recent financial management supervision mission conducted in July 2018, concluded that PMT/FNDS has been working to ensure compliance with FM requirements of World Bank-financed operations. The Project submitted to the World Bank acceptable project audited financial statements for the fiscal year ended 31 December 2018, therefore there is no outstanding audit report under this operation.

37. The FM arrangements in place for the ongoing Agriculture and Natural Resources Landscape Management Project 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. The PMT/FNDS will prepare quarterly interim unaudited financial reports (IFRs) and provide such reports to the Bank within 45 days of the end of each calendar quarter. The Project financial statements 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 on Auditing (ISA) as issued by the International Auditing and Assurance Standards Board (IAASB) within the International Federation of Accountants (IFAC).

38. Concerning the disbursement arrangements, no changes is expected to the disbursement methods and procedures and funds flow, except for the reallocation of funds between category expenditures. Therefore, disbursement of IDA funds will continue to be done on a transactions basis (statement of expenditures [SOEs]), and the AF will also make use of advances, direct payments, reimbursement and special commitment methods for disbursements.

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

D. Procurement

40. While overall procurement arrangements are not affected by the cyclone events, the higher demand in amount of work and urgency needed has prompted an increase of qualified staff in the FNDS, additional training, and implementation support under the AF.

41. **Procurement procedures.** The "Guidelines: Procurement of Goods, Works and Non-consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014) ("Procurement Guidelines")" and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014) ("Consultant Guidelines")" will be replaced by the Bank's new procedures (see Par. 42).

42. The Borrower will carry out procurement under the proposed additional financing in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" (Procurement Regulations) dated July 2016, revised November 2017 and August 2018 under the "New Procurement Framework (NPF), and the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" (Report Number: 61109, January 2011 and as of July 1, 2016). The proposed Additional Financing to the Agriculture and Natural Resources Landscape Management Project will continue to be implemented by the International Fund Management Unit (UGFI) within the FNDS under MITADER.

43. Procurement Capacity Assessment. FNDS's procurement capacity was recently assessed (March 2019) by an independent firm (ML Consultancy). The firm identified the existing capacity, weaknesses, challenges and opportunities and prepared an action plan to improve the performance of this implementing agency, including the allocation of procurement practitioners by procurement category. In FY17 a Procurement Post Review (PPR) assessment of FNDS was also undertaken and according to the assessments above and reconfirmed during the preparation of this additional financing, the unit still comprises seven procurement practitioners, including procurement officers and procurement assistants. The team has experience with implementing WB projects. Although the team recently participated in the World Bank's NPF training in March 2019, they are still not fully familiar with it. The unit is well equipped with office space and all the means to satisfactorily perform the work. The World Bank procurement team is working with the team to improve the quality of the documents prepared and the record keeping system. Lately, the FNDS has been confronted with many complaints from consultants about alleged faults in the procurement procedures and it needs to be resolved.

44. **Mitigating Measures**. Considering the findings of the independent firm assessment and the results of the World Bank's FY17 PPR assessment, the World Bank team continues to monitor the division of procurement practitioners by category to ascertain the fitness of the proposed approach. Although a group of three procurement officers attended a Training Workshop on the NPF, the World Bank procurement team will continue working closely with the client to enhance the capacity of the implementing agent to efficiently process the procurement activities, improve the record keeping and allow the client to use the advantages and flexibility of NPF to get better development results with adequate focus on results and value for money. To continue enhancing the capacity of the unit to respond to the demand resulting from

this project, one additional procurement specialist is in the process of being recruited. A robust complaint handling mechanism needs to be established to respond to the complaints in a timely manner.

45. **Project Procurement Strategy for Development (PPSD)**: The client submitted the PPSD to the Bank March 11, 2019. The document submitted was reviewed and considered acceptable to the Bank. Based on complexity of the remaining activities of the original project and activities of the additional financing, a simplified PPSD template was used. The PPSD set out market approaches and selection methods to be followed during project implementation, as well as procurement risks and mitigation measures.

46. **Procurement Risk**. The procurement risk associated with the Project in view of the findings indicated above is rated Substantial (however, given the risk rating of Moderate for Financial Management the overall Fiduciary Risk is rated Moderate).

47. **Procedures for procurement of works, goods and non-consulting and for selection of consultant**: As per outcomes of PPSD and considering that (a) national procurement systems have been assessed by the Bank and found acceptable subject to minor modifications; and (b) there is enough qualified contractors, suppliers and consultants in the local market; most of procurement of goods, works and consulting services will be conducted through national approach under the national regulation through request for bids, request for quotations, quality and cost based selection, consultant qualification selection and direct selection procedures. There are no high value contracts that can represent a risk for the project. Mainly, the procurement of goods for the project is resumed in supply of vehicles, motorbikes, and office equipment; for works is resumed in construction of irrigations schemes, construction of small bridges; and for consultancies is resumed in hiring the firms for supervision of works.

48. **Procurement Plan.** One of the results of the PPSD was a procurement plan covering the first 18 months of the Project, which has been completed and shared with the Bank. The procurement plan includes the selection methods, market approach and arrangements to be followed by the Borrower for procurement of goods, works, non-consulting services, and consulting services. Every 12 months or as required during implementation, the procurement plan will be further updated, submitted and cleared by the World Bank to reflect the actual project implementation needs.

49. **Review by the World Bank of procurement decisions**. The table below indicates the initial values for 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 Mission in July 2019 under a post procurement review exercise. Direct Contracting/Single Source Selection will be subject to prior review only for contracts estimated to cost more than the amounts indicated in table 2 (below). The World Bank may, from time to time, review the amounts, based on the performance of the implementing agencies.

Table 2: **Prior Review Thresholds**

Procurement Type	Prior Review (US$)
Works	10,000,000
Goods and Non-consulting Services	2,000,000
Consultants (Firms)	1,000,000
Consultants (Individuals)	300,000

50. **Assessment of National Procedures**. The Mozambique Procurement Regulation, the Decree 5/2016 of March 8, 2016 has been assessed as required under the World Bank's Procurement Framework. The assessment indicated that the country's regulations are generally consistent with international best practice for the following reasons: (a) there is adequate advertising in the national media; (b) the procurement is generally open to eligible firms from any country; (c) contract documents have an appropriate allocation of responsibilities, risks, and liabilities; (d) there is publication of contract award information in local newspapers of wide circulation; (e) the national regulations do not preclude the World Bank from its rights to review procurement documentation and activities under the financing; (f) there is an acceptable complaints mechanism; and (g) there is adequate maintenance of records of the procurement process.

51. 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 (Report Number: 61109, January 2011 and as of July 1, 2016) including without limitation the World Bank's right to sanction and the World Bank's inspection and audit rights.

52. With the incorporation of the above provision, the Mozambique Procurement Regulation will be acceptable to use under those procurements not subject to the World Bank's prior review, as the thresholds indicated in the table above, or any updates indicated by the World Bank in the Procurement Plan.

E. Environmental and Social (including Safeguards)

53. **New environmental features**. The AF will expand the SUSTENTA to new provinces, but the additional areas share a lot of common physical (the climate is predominantly humid mesothermal, sub-humid and humid subtropical and geology from Precambrian basement complex – Proterozoic and Precambrian Craton – Archean to Proterozoic) and biological (broadleaf evergreen and deciduous forest, grassland vegetation, montane forest and savanna grassland) traits. Only a few new environmental outstanding characteristics exist such as the coastal forest, mangroves and dune vegetation of the coastline districts, the key biodiversity areas of Mount Mabu, Moebase region and Chimanimani

Mountains as well as protected areas: Chimanimani and Gilé National Reserves and Primeiras and Segundas Environmental Protected Area. Therefore, since the AF and the Parent project have a similar scope of activities and their targeted intervention areas are broadly similar, the approach or management/mitigation measures devised under the original financing will be applied in the AF. However, lessons learned from the original financing have been taken into consideration and these include: (i) regularization of land tenure also requires the safeguards team's attention due to the possibility of land conflicts; (ii) lack of awareness of the ESMF by procurement and other project staff often results in the failure to consider safeguards requirements in tender documents. A land protocol and a protocol for preventing critical habitat conversion have been adopted to help address the land conflicts in land tenure regularization and the unintended conversion of critical habitats, respectively, while new templates and systems have been developed to ensure safeguards requirements are considered in tender documents.

54. **Environmental and social risks and impacts**. Like the parent project, the AF is a Category B-partial assessment project, owing to the nature and magnitude of its potential environmental and social impacts, which are expected to be minor, site specific, reversible, and easily manageable. Project environmental and social impacts will mainly result from tertiary roads maintenance and the development of agricultural and forest value chain business plans (vegetation clearing, dust emissions, noise and vibration, contamination from pesticides and fertilizers, etc.). On the other hand, the AF will generate positive impacts by restoring an additional 400 ha of degraded land and increasing by 6,000 ha the area under sustainable landscape management practices.

55. **Gender-based violence (GBV).** To ensure the incorporation of GBV risk mitigation in the social safeguards instruments, the GBV risk assessment tool developed by the WB was applied to identify contextual and potential project-related risks. The GBV risk has been rated as "moderate" (score 14.5 out of 25), and a technical assessment of it will be undertaken to understand the baseline situation and identify a number of mitigation measures to minimize the risk from SUSTENTA AF activities. The technical assessment will also produce a GBV Action Plan to address the identified risks. The technical assessment will take place before the implementation of project activities and the Action Plan will be included in the final ESMF.

56. **Application of safeguards policies**. The AF will use the safeguard policies applied to the parent project, including in the cyclone areas, instead of the new Environmental and Social Framework, as all the eligibility criteria from the latest World Bank guidance on the subject[7] are met:

- *Time limit*: the decision note of the Concept Review was issued before December 31, 2018.
- *Clear rationale for AF use*: A well performing project is being scaled up and will cover a broader geographical scope.
- *Scope limitation*: the magnitude and scope of the proposed scale-up activities are well accommodated within the recipient (FNDS) safeguards capacity and implementation arrangements, particularly in relation to their ongoing projects that overlap geographically:

[7] Kiosk Announcement of 20th December 2018 on the "Use of Additional Financing for Scale-up of Ongoing Operations Governed by Safeguard Policies".

SUSTENTA (P149620), MozFIP (P160033), MozBio (P131965), MozLand (P164551) and Zambezia ERPD (P164524).

- *Safeguard category, risks or policies:* The proposed AF activities will not raise the safeguard category or risk or trigger any new safeguard policies from the current project Category B, Moderate Risk and triggered six policies (OP 4.01 Environmental Assessment; OP 4.04 Natural Habitats; OP 4.36 Forests; OP 4.09 Pest Management; OP 4.12 Involuntary Resettlement; OP 4.37 Safety of Dams).
- *ISDS and Environmental Assessment of Scaled-up Activities:* The World Bank safeguards team has updated the ISDS and the PIU has updated the safeguards instruments (ESMF, RPF and PMP) of the parent project and consulted and disclosed them on May 13, 2019 in the FNDS and REDD+[8] websites.

57. **Citizen engagement.** Several mechanisms for beneficiary feedback will be supported under the project. Firstly, extensive consultations were conducted during preparation and will continue during implementation. These were carried out through stakeholders' workshops, raising awareness meetings, local media, community representatives, and public gatherings to ensure that voices of the most vulnerable population groups were taken in consideration. Through consultations, the project will promote two-way interaction between the implementing agency and the beneficiaries. Secondly, the project will proactively disseminate information of and promote feedback from the main stakeholders (SECFs, SFs and SMEs). The PIU and the extensionists network established by the project will ensure that the business plans are implemented in consultation with the key stakeholders. Thirdly, a common Grievance Redress Mechanism for all the projects implemented by FNDS is in place to manage grievances related to environmental and social safeguards. FNDS does not currently collect any information on citizen satisfaction related to the matching grant scheme. Therefore, as part of institutional strengthening, a beneficiary feedback system will be developed with gender-disaggregated data.

V. WORLD BANK GRIEVANCE REDRESS

58. 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 WB 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

[8] Reducing emissions from deforestation and forest degradation, Conservation of forest carbon stocks, Sustainable management of forest, and Enhancement of forest carbon stocks in developing countries

VI. SUMMARY TABLE OF CHANGES

	Changed	Not Changed
Results Framework	✓	
Components and Cost	✓	
Loan Closing Date(s)	✓	
Reallocation between Disbursement Categories	✓	
Disbursements Arrangements	✓	
Procurement	✓	
Implementing Agency		✓
Project's Development Objectives		✓
Cancellations Proposed		✓
Safeguard Policies Triggered		✓
EA category		✓
Legal Covenants		✓
Institutional Arrangements		✓
Financial Management		✓
APA Reliance		✓
Other Change(s)		✓

VII. DETAILED CHANGE(S)

COMPONENTS

Current Component Name	Current Cost (US$, millions)	Action	Proposed Component Name	Proposed Cost (US$, millions)
Agriculture and Forest-Based Value Chain Development	21.00		Agriculture and Forest-Based Value Chain Development	58.00
Securing Land Tenure Rights and Increasing Natural	14.00		Securing Land Tenure Rights and Increasing	22.00

Resources Resilience			Natural Resources Resilience	
Project Coordination and Management	5.00		Project Coordination and Management	10.00
Contingency Emergency Response	0.00		Contingency Emergency Response	10.00
TOTAL	**40.00**			**100.00**

LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Current Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-58550	Effective	31-Oct-2021	31-Oct-2021	31-Oct-2023	29-Feb-2024
IDA-D1190	Effective	31-Oct-2021	31-Oct-2021	31-Oct-2023	29-Feb-2024

REALLOCATION BETWEEN DISBURSEMENT CATEGORIES[9]

Current Allocation	Actuals + Committed	Proposed Allocation	Financing % (Type Total)	
			Current	Proposed
IDA-58550-001 | Currency: XDR				
iLap Category Sequence No: 1	Current Expenditure Category: GDS,WKS,NCS,CS,OC,TRG excp part Aii			
9,900,000.00	0.00	9,900,000.00	100.00	100.00
iLap Category Sequence No: 2	Current Expenditure Category: GDS,WKS,NCS,CS Macth Grt part Aiia			
0.00	0.00	0.00	100.00	100.00
iLap Category Sequence No: 3	Current Expenditure Category: Transf. in respect of PCG fund Aiib			
0.00	0.00	0.00	100.00	100.00

[9] Allocation to categories considered the replenishment of categories whose balance was reallocated to the Contingency Emergency Recovery Component (CERC) for an amount of US$ 10 million following the activation of the Immediate Response Mechanism (IRM) in April 2019 and was done as follows: Goods, Works, Non-Consulting services, Consultants' Services, Operating costs and training for the project, except for the parts A (ii)(a) of the project US$ 18 million, and Goods, Works, Non-Consulting Services, Consultants' Services, in respect of Matching Grants under part A (ii) (a) of the project US$ 42 million.

iLap Category Sequence No: 4		Current Expenditure Category: Transf. in respect of premium Aiic			
0.00		0.00	0.00	100.00	100.00
iLap Category Sequence No: 5		Current Expenditure Category: Emergency Expenditures part D			
0.00		0.00	0.00	100.00	100.00
Total	**9,900,000.00**	**0.00**	**9,900,000.00**		
IDA-D1190-001 | Currency: XDR					
iLap Category Sequence No: 1		Current Expenditure Category: GDS,WKS,NCS,CS,OC,TRG excp part Aii			
8,800,000.00		7,199,818.34	8,800,000.00	100.00	100.00
iLap Category Sequence No: 2		Current Expenditure Category: GDS,WKS,NCS,CS Macth Grt part Aiia			
4,600,000.00		1,060,776.67	4,600,000.00	100.00	100.00
iLap Category Sequence No: 3		Current Expenditure Category: Transf. in respect of PCG fund Aiib			
1,800,000.00		0.00	1,800,000.00	100.00	100.00
iLap Category Sequence No: 4		Current Expenditure Category: Transf. in respect of premium Aiic			
700,000.00		0.00	700,000.00	100.00	100.00
iLap Category Sequence No: 5		Current Expenditure Category: Emergency Expenditures part D			
0.00		0.00	0.00	100.00	100.00
iLap Category Sequence No: 6		Current Expenditure Category: PPF REFINANCING			
2,600,000.00		1,158,940.25	2,600,000.00		
Total	**18,500,000.00**	**9,447,970.90**	**18,500,000.00**		

DISBURSEMENT ARRANGEMENTS

Change in Disbursement Arrangements

Yes

Expected Disbursements (in US$)

Fiscal Year	Annual	Cumulative
2016	1,925,783.00	1,925,783.00
2017	10,899,573.00	12,825,356.00
2018	6,624,902.00	19,450,258.00
2019	26,422,128.00	45,872,386.00
2020	24,842,074.00	70,714,460.00
2021	14,697,593.00	85,412,053.00
2022	9,351,542.00	94,763,596.00
2023	3,736,405.00	98,500,001.00
2024	1,500,000.00	100,000,000.00

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Latest ISR Rating	Current Rating
Political and Governance	Substantial	Substantial
Macroeconomic	Substantial	Substantial
Sector Strategies and Policies	Moderate	Moderate
Technical Design of Project or Program	Substantial	Moderate
Institutional Capacity for Implementation and Sustainability	Substantial	Moderate
Fiduciary	Moderate	Moderate
Environment and Social	Substantial	Substantial
Stakeholders	Substantial	Substantial
Other	Substantial	Substantial
Overall	Substantial	Substantial

LEGAL COVENANTS – Additional Financing to the Agriculture and Natural Resources Landscapes Management Project (SUSTENTA) (P168940)

Sections and Description
Conditions: Article V (5.01): The Subsidiary Agreement has been executed on behalf of the Recipient and FNDS in accordance with terms and conditions satisfactory to the Association. Article V (5.02) the Subsidiary Agreement has been duly authorized or ratified by the Recipient and is legally binding upon the Recipient and FNDS in accordance with its terms.

VIII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Mozambique

Additional Financing to the Agriculture and Natural Resources Landscape Management Project (SUSTENTA)

Project Development Objective(s)

The project development objective is to integrate rural households into sustainable agriculture and forest-based value chains in the Project area and, in the event of an Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency.

Project Development Objective Indicators by Objectives/ Outcomes

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Rural households integrated into sustainable agriculture and forest-based value chains								
Direct project beneficiaries (Number)		0.00	115,000.00	170,000.00	250,000.00	250,000.00	250,000.00	250,000.00
Action: This indicator has been Revised								
Female beneficiaries (Percentage)		0.00	50.00	50.00	50.00	50.00	50.00	50.00
Action: This indicator has been Revised								
Rural households integrated into sustainable agriculture and forest-		0.00	15,094.00	25,156.00	40,250.00	40,250.00	40,250.00	40,250.00

based value chains in the targeted landscape (Number)								
Action: This indicator has been Revised								
Smallholder farm households (Number)		0.00	15,000.00	25,000.00	40,000.00	40,000.00	40,000.00	40,000.00
Action: This indicator has been Revised								
Female smallholder farm households (Number)		0.00	6,750.00	11,250.00	18,000.00	18,000.00	18,000.00	18,000.00
Action: This indicator has been Revised								
Small Emerging Commercial Farmers (Number)		0.00	94.00	156.00	250.00	250.00	250.00	250.00
Action: This indicator has been Revised								
Small Emerging Commercial Farmers - Less than 35 years old (Number)		0.00	14.00	57.00	100.00	100.00	100.00	100.00
Action: This indicator is New								
Small Emerging Commercial Farmers -Women less than 35 years old (Number)		0.00	4.00	17.00	30.00	30.00	30.00	30.00
Action: This indicator is New								
SME Agribusinesses (Number)		0.00	10.00	25.00	40.00	50.00	50.00	50.00
Action: This indicator is New								

Completion of activities agreed in the annual strategic action plans (SAPs) of the participatory multi-stakeholders Landscape Forums (MSLF) (Percentage)		0.00	0.00	30.00	50.00	65.00	75.00	80.00
Action: This indicator has been Marked for Deletion								
Community Delimitation Certificates Issued (Number)		0.00	27.00	33.00	67.00	108.00	270.00	270.00
Action: This indicator has been Marked for Deletion								
Area restored or re/afforested (Hectare(Ha))		0.00	180.00	653.00	1,381.00	2,000.00	2,000.00	2,000.00
Action: This indicator has been Revised								
Area restored (Hectares) - (Subtype: Breakdown) (Core)		0.00	0.00	150.00	500.00	800.00	1,600.00	1,600.00
Action: This indicator has been Marked for Deletion								

Intermediate Results Indicators by Components

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Component: Agriculture and Forest-Based Value Chain Development								
Smallholders farmers implementing VCD activities and being serviced by SECFs (Number)		0.00	15,000.00	25,000.00	40,000.00	40,000.00	40,000.00	40,000.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Action: This indicator has been Revised								
Smallholders' satisfaction with services provided by SECFs (Percentage)		0.00	0.00	0.00	50.00	75.00	75.00	75.00
Action: This indicator is Unchanged								
Value Chain Development business plans implemented by SECFs (Number)		0.01	94.00	156.00	250.00	250.00	250.00	250.00
Action: This indicator has been Revised								
SME Agribusinesses implementing approved VCD business plans (Number)		0.01	10.00	25.00	40.00	50.00	50.00	50.00
Action: This indicator has been Revised								
SME Agribusiness implementing approved VCD business plans - less than 35 years old - startup (Number)		0.00	4.00	10.0	20.00	20.00	20.00	20.00
Action: This indicator is New								
Beneficiaries of weather-based crop insurance (Number)		0.00	10,000.00	20,000.00	30,000.00	40,000.00	40,000.00	40,000.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Action: This indicator has been Revised								
Area provided with irrigation and drainage services (ha) (CRI, Hectare(Ha))		0.00	250.00	250.00	250.00	250.00	250.00	250.00
Action: This indicator is Unchanged								
Area provided with irrigation and drainage services - Improved (ha) (CRI, Hectare(Ha))		0.00	0.00	50.00	100.00	150.00	250.00	250.00
Action: This indicator has been Marked for Deletion								
Roads Maintained (Kilometers)		0.00	300.00	600.00	750.00	800.00	900.00	1050.00
Action: This indicator has been Revised								
Clients who have adopted an improved agr. technology promoted by the project (CRI, Number)		0.00	7,500.00	12,500.00	20,000.00	20,000.00	20,000.00	20,000.00
Action: This indicator has been Revised								
Clients who adopted an improved agr. technology promoted by project – female (Number)		0.00	3,000.00	5,000.00	8,000.00	8,000.00	8,000.00	8,000.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Action: This indicator has been Revised								
Land area where sustainable landscape mgt practices were adopted as a result of the project (Hectare(Ha))		0.00	8,000.00	13,500.00	16,500.00	22,000.00	22,000.00	22,000.00
Action: This indicator has been Revised								
Smallholder yields in priority value chains (Number)		0.00						0.00
Action: This indicator is Unchanged								
Maize (Number)		1.50	1.70	1.90	2.10	2.30	2.50	2.50
Action: This indicator is Unchanged								
Sesame (Number)		0.80	0.98	0.98	0.98	1.00	1.00	1.00
Action: This indicator is Unchanged								
Beans (Number)		1.10	1.25	1.30	1.30	1.40	1.50	1.50
Action: This indicator is Unchanged								
Soya (Number)		1.50	1.60	1.70	1.80	1.90	2.00	2.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Component: Securig Land Tenure Rights and Increasing Natural Resources Resilience								
Community Delimitation Certificates Issued (Number)		0.00	60.00	120.00	180.00	240.00	270.00	270.00
Action: This indicator is New								
Land parcels with use or ownership rights recorded as a result of the project (Number)		0.00	80,000.00	110,000.00	140,000.00	150,000.00	150,000.00	150,000.00
Action: This indicator is Unchanged								
Land parcels with use/ownership rights recorded as a result of project-female (Number)		0.00	48,000.00	66,000.00	84,000.00	90,000.00	90,000.00	90,000.00
Action: This indicator is Unchanged								
Client satisfaction with land administration services (Percentage)		0.00			50.00	75.00	75.00	75.00
Action: This indicator is Unchanged								
Completion of activities agreed in the Annual Strategic Action Plans (SAPs) of the Participatory Multistakeholders Landscape Forums (MSLFs) (Percentage)		0.00						75.00

Indicator Name	DLI	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Action: This indicator is New								
Meetings of the Multi-Stakeholder Landscape Forums (MSLF) with participation above the 70% threshold of agreed Forum representatives (Percentage)		0.00	70.00	75.00	80.00	80.00	80.00	80.00
Action: This indicator is Unchanged								
Land area supported by community land use plans [Hectare(Ha)]		0.00	170,000.00	235,000.00	300,000.00	365,000.00	405,000.00	405,000.00
Action: This indicator is Unchanged								
Component: Contingency Emergency Response								
Time taken for the first disbursement of funds requested by the Government for an eligible crisis or emergency (Weeks)		0.00						8.00
Action: This indicator is New								

Monitoring & Evaluation Plan: PDO Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.	MITADER	Reports	Field data collection	Yearly
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.	MITADER	Reports	Field data collection	Yearly

Rural households integrated into sustainable agriculture and forest-based value chains in the targeted landscape		MITADER, Service Provider	Perception of improved access to markets disaggregated by value chain, collected through surveys.	Survey	Yearly
Smallholder farm households	Of which smallholder farm households.	MITADER, Service Provider	Perception of improved access to markets disaggregated by value chain, collected through surveys.	Survey	Yearly
Female smallholder farm households		MITADER, Service Provider	Perception of improved access to markets disaggregated by value chain, collected through surveys.	Survey	Yearly
Small Emerging Commercial Farmers		MITADER,	Perception of	Survey	Yearly

		Service Provider	improved access to markets disaggregated by value chain, collected through surveys.		
MSME Agribusinesses	Of which, MSME Agribusinesses, as defined in the PAD.	MITADER	Perception of improved access to markets disaggregated by value chain, collected through surveys	Survey	Yearly
Smallholder farm households					
Small Emerging Commercial Farmers - Less than 35 years old					
Small Emerging Commercial Farmers - Women less than 35 years old					
Completion of activities agreed in the annual strategic action plans (SAPs) of the participatory multi-stakeholders Landscape Forums (MSLF)	Each of the Multi-Stakeholder Landscape Forums at the Provincial levels will prepare annual strategic action plans, stating agreed activities for	MITADER	PIUs at the Provincial level	Group discussion	Yearly

	a given year. This indicator measures the extent to which those activities were completed.				
Community Delimitation Certificates Issued		MITADER	Reports	Public records	Yearly
Area restored or re/afforested		MITADER	Reports	Field data collection	Yearly
Area restored		MITADER	Reports	Field data collection	Yearly

Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Smallholders farmers implementing VCD activities and being serviced by SECFs		Service Provider/MITADER/MASA	M&E System/Survey	Field data collection	Yearly
Smallholders' satisfaction with services provided by SECFs		MITADER, Service Provider	Reports	Survey	Two times - MTR and Final Evaluation
Value Chain Development business plans implemented by SECFs		Service Provider/MITADER/MASA	M&E System established by Service Provider and MITADER	Field data collection	Yearly
SME Agribusinesses implementing approved VCD business plans		MITADER, MASA and Districts	Reports	Field data collection	Yearly

SME Agribusiness implementing approved VCD business plans - less than 35 years old -startup				Field data collection	
Beneficiaries of weather-based crop insurance		MITADER	Reports	Field data collection	Yearly
Area provided with irrigation and drainage services (ha)	This indicator measures the total area of land provided with irrigation and drainage services under the project, including in (i) the area provided with new irrigation and drainage services, and (ii) the area provided with improved irrigation and drainage services, expressed in hectare (ha).	INIR, MITADER	Reports	Field data collection	Yearly
Area provided with irrigation and drainage services - Improved (ha)		INIR, MITADER	Reports	Field data collection	Yearly
Roads Maintained		ANE, MITADER, Districts	Reports	Field data collection	Yearly
Clients who have adopted an improved agr. technology promoted by the project	This indicator measures the number of clients of the project who have adopted an improved agricultural technology promoted by the project.	MITADER, MASA, Districts	Report	Field data collection	Yearly
Clients who adopted an improved agr. technology promoted by project – female		MITADER, MASA, Districts	Reports	Field data collection	Yearly

Land area where sustainable landscape mgt practices were adopted as a result of the project		MITADER	Reports	Field data collection	Yearly
Smallholder yields in priority value chains		MASA, MITADER, Districts	Reports	Field data collection	Yearly
Maize		MASA, MITADER, Districts	Reports	Field data collection	Yearly
Sesame		MASA, MITADER, Districts	Reports	Field data collection	Yearly
Beans		MASA, MITADER, Districts	Reports	Field data collection	Yearly
Soya		MASA, MITADER, Districts	Reports	Field data collection	Yearly
Community Delimitation Certificates Issued					
Land parcels with use or ownership rights recorded as a result of the project		MITADER	Reports	Public records	Yearly
Land parcels with use/ownership rights recorded as a result of project-female		MITADER	Reports	Field data collection	Yearly
Client satisfaction with land administration services		MITADER	Survey	Survey	Twice - MTR and Final Evaluation
Completion of activities agreed in the Annual Strategic Action Plans (SAPs) of the Participatory Multistakeholders Landscape Forums (MSLFs)					

Meetings of the Multi-Stakeholder Landscape Forums (MSLF) with participation above the 70% threshold of agreed Forum representatives		MITADER, MSLFs	Forum reports	Group discussion	Yearly
Land area supported by community land use plans		MITADER, Districts	Reports	Field data collection	Yearly
Time take for the first disbursement of funds requested by the Government for an eligible crisis or emergency		MEF	Reports	Project records	N/A

Annex 1: Cyclone Idai and Kenneth Impact and Response

MOZAMBIQUE – Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940

Impact

1. In mid-March 2019, Cyclone Idai caused extraordinary levels of impact in Mozambique, directly affecting over 1.5 million people[10], with 1.85 million people in need of humanitarian aid[11]. Idai's U-shaped path passed over Zambezia, Nampula and Tete provinces in the first week of March 2019, before coming back through Sofala, Manica and Tete during the end of the second week. The cyclone caused massive destruction resulting from both flooding and very strong winds. As of April 25, 2019, 603 deaths and more than 1,600 injuries have been reported by the Government across the country. Cyclone Idai made landfall in Mozambique near the city of Beira, in the Sofala province. The city—Mozambique's fourth largest, with a population of 533,000[12]—was hit hard by both cyclone-level wind speeds of over 175km/h as well as torrential rainfall and storm surge. Sofala accounts for 70 percent of total damages to buildings and infrastructure. The UN satellite agency estimated that more than 2,000 square kilometers of land were under water due to the cyclone, damaging 13 percent of the country's agricultural lands, with 715,000 ha of crops recorded as destroyed[13]. Non-agricultural businesses suffered damages to facilities and equipment, as well as demand and supply shocks in the aftermath of the shock. The cyclone and consequent floods have wiped out or damaged a large share of the core infrastructure including roads and bridges, electricity and water networks, hospitals, schools and telecommunications. The events negatively affected many people's lives, livelihoods, and socioeconomic infrastructure which will have longstanding impacts.

2. Six weeks after Cyclone Idai, on the evening of April 25, 2019, Cyclone Kenneth made landfall in the Province of Cabo Delgado, Northern Mozambique. Upon landfall, the category 4 cyclone brought winds of up to 220 km/h, causing massive destruction to homes and infrastructure in the districts of Ibo, Macomia and Quissanga. Kenneth slowly moved south towards the city of Pemba, with a population 200,000, causing major flooding in its path. As of May 7, 2019, the National Disaster Management Institute (INGC) reported that over 250,000 people have been affected, including 45 casualties. 45,000 houses have been damaged or destroyed, 477 classrooms damaged, and 83,000 ha of crops affected.

3. The results of a Global Rapid Post-Disaster Damage Estimation (GRADE)[14] of the impact of Cyclone Idai to buildings, infrastructure and agriculture in Mozambique show total damages of US$773 million (Table 1.1). The estimated damages are relatively evenly distributed across residential buildings, non-residential buildings, infrastructure and agriculture. Agricultural damages have a high uncertainty range and could exceed US$250 million.

[10] INGC, Cyclone Idai Situational Update (25 April 2019)
[11] UN Flash Appeal, 26 March 2019
[12] National Institute of Statistics, Disclosure of Preliminary Results of the IV General Census of Population and Housing 2017
[13] INGC, Cyclone Idai Situational Update (April 4, 2019)
[14] Global Rapid post-disaster Damage Estimation (GRADE) approach developed at the World Bank and conducted by the Global Practice for Social, Urban, Rural and Resilience (GSURR) Disaster-Resilience Analytics & Solutions (D-RAS) Knowledge Silo Breaker (KSB). The methodology aims to address specific damage information needs in the first weeks after a major disaster. For details of the methodology see: https://www.gfdrr.org/sites/default/files/publication/DRAS_web_04172018.pdf.

Table 1.1: Estimates of capital damages by sector (in US$ millions)

Modelled			Reported & Modeled	Total	Total Reconstruction Needs (Building back better)
Residential Buildings	Non-Residential Buildings	Infrastructure	Agriculture		
178	149	188	258	773	1,160

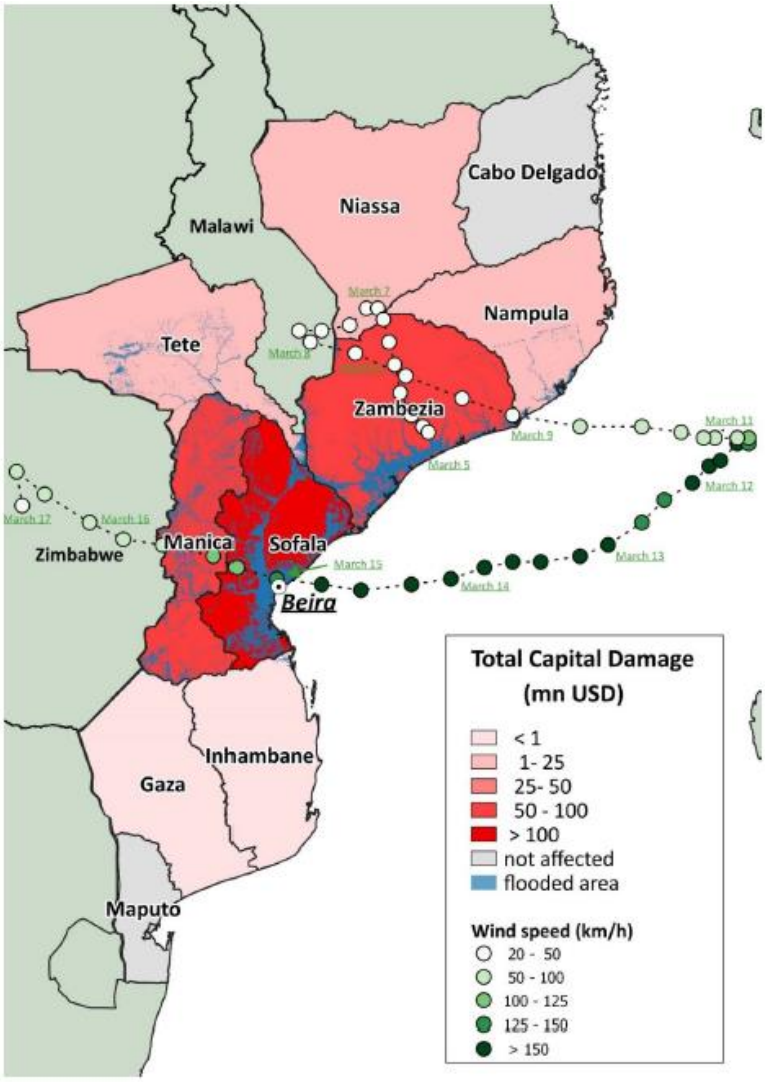


Figure 1.1: Cyclone path and modelled capital damages[15]

[15] Global Rapid post-disaster Damage Estimation (GRADE) approach For details of the methodology see: *https://www.gfdrr.org/sites/default/files/publication/DRAS_web_04172018.pdf.*

4. Damages to public sector buildings including markets, schools and health facilities, will have long term impacts on the population in the affected areas. In and around Beira, public sector buildings have been damaged, affecting service delivery in health and education among other sectors. Over 300,000 students were affected as their schools were damaged by the cyclone. Hospitals in affected areas were badly damaged and equipment was destroyed. Finally, many municipal markets were also damaged, affecting economic activity, especially for small-scale enterprises.

5. Due to the strategic importance of the Beira corridor for international trade, the damages to critical infrastructure and logistics in and around Beira are expected to have ripple effects on neighboring countries, in addition to the negative effects on the local economy. The Beira corridor is a trading route for countries including Malawi, Zambia and Zimbabwe that links hinterland countries to the ocean through the port of Beira. Cyclone winds and floods destroyed or damaged critical infrastructure, such as roads and bridges, as well as buildings in Beira used to facilitate trade, such as warehouses. The capacity of the region to facilitate trade is expected to decrease as a consequence of Cyclone Idai. This may have long term impacts, as businesses search for alternative trading routes during the disruption. Some may not return when services have recovered. Local businesses have suffered major damages and losses. In addition to the direct costs associated with damages to facilities and equipment, local enterprises suffered from the indirect effects of infrastructure disruptions, as well as demand and supply shocks.

Response

6. For Mozambique, reconstruction needs to cover damages and build back better are US$1,160 million and humanitarian needs estimated by the UN are US$282 million (Table 1.2). The needs far exceed the funds available to the Government of Mozambique. Despite generous contributions from donors, the funding gap remains at US$1,114.7 million[16]. A Government-led Post-Disaster Needs Assessment, under the coordination of the Ministry of Public Works, Housing and Water Resources, and in coordination with the United Nations (UN), the European Union (EU) and the World Bank concluded in May, 2019.

Table 1.2: Current contributions and financing gaps (US$ million)

Item	US$ Million
Estimated Humanitarian and Recovery Needs	**1,442.0**
Estimated Humanitarian Needs	**282.0**
Estimated Recovery and Reconstruction Needs	**1,160.0**
Available Resources to Date	**327.3**
World Bank from:	**109.0**
National IDA resources	94.0
Cancellations and restructurings	15.0

[16] As of April 23, 2019

IMF Rapid Credit Facility	**120.0**
Other Development Partners	**94.3**
Government	**4.0**
Financing Gap	**1,114.7**
Crisis Response Window	**350.0**
Additional Financing IPFs*	205.0
Additional Financing for IRM/CERC replenishment	55.0
New Emergency Recovery Project (ERL)	90.0

** Does not include US$15 million that is freed up via cancellations from ongoing projects*

7. The Government is responding with limited means in close collaboration with humanitarian partners. The Government has provided the National Institute for Disaster Management (INGC) with 256 million meticais (US$4 million) for emergency response and is committed to allocate additional resources. Cyclone Idai and Kenneth have already exhausted the limited annual budget allocation for the Annual Contingency plan, which is currently the only active instrument for financial disaster response. The Government now relies on ad-hoc budget reallocations and the mobilization of donations or loans from the donor community.

8. **Pledges towards humanitarian and development needs add up to close to US$214.3 million for Mozambique specific support.** To fund the humanitarian relief effort in Mozambique, the UN launched a Flash Appeal for an amount of US$282 million. The major share of the appeal amount was dedicated to food security and health to assist the 1.72 million people in need of immediate life-saving and life-sustaining assistance over the three months following the disaster. About US$94.3 million was pledged by donors towards the appeal[17]. The United States (US$48.2 million) and United Kingdom (US$5.6 million) made the largest country contributions to the pledge. US$19 million was funded by the Central Emergency Response Fund (UN). In addition, the IMF approved emergency financial assistance of US$120 million for budgetary support.

9. **The GoM requested the World Bank's assistance to help finance key recovery interventions.** The World Bank is supporting the GoM in addressing the most urgent needs through the IDA Disaster Risk Management (DRM) and Resilience Program (US$34 million), restructuring of existing projects (US$60 million) and by activating the IRM/CERC (US$55 million) of three on-going projects within the IDA portfolio: US$35 million from the Integrated Feeder Road Development Project (P158231), US$10 million from the Water Services and Institutional Support (WASIS II) Project (P149377) and US$10 million from the SUSTENTA.

[17] As of April 23, 2019

Annex 2: Lessons Learned

MOZAMBIQUE – Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

1. The design of the SUSTENTA Project was based on relevant lessons from experiences in sub-Saharan Africa (Burkina Faso, Ethiopia, Ghana, Kenya, Madagascar, Namibia, Rwanda, Tanzania and Zambia) and countries in other regions (Bangladesh, Brazil, Cambodia, Colombia, India, Indonesia, Mexico, Nepal and Peru), which showed positive results using private sector SECF models to promote the transformation of agriculture and increase the productivity of competitive and sustainable VCs, addressing in a coordinated way the main structural constraints on access to finance, infrastructure, land security, NRM, integrated landscape management and land use planning. The design was also based on the relevant lessons drawn from the preparation of the SCD of Mozambique and the CPF as well as dialogue with associated countries. In addition, the preparation of the proposal for additional funding of SUSTENTA benefits from the lessons learned in the implementation of the program during the early years, also evidenced in the MTR (May 2018) and crisis response. The main lessons are listed below.

2. **Crisis and emergency situations increase several risks, but they also provide opportunities to rebuild better and build resilience.** Project human and financial resources can get easily stretched and sidetracked from their main competencies. Experience shows that it is best to follow a government plan and delegate emergency and sometimes recovery activities to specialized providers or United Nations agencies, while the Project focuses on the monitoring, impact assessment, and reporting. The Project will therefore focus on its implementation operations which will be beneficial to the original project areas as well as the areas impacted by the cyclone, and delegate specific recovery activities through country coordinated mechanisms. At the same time, emergencies also promote a sense of purpose and motivation under a common goal, often resolving issues of coordination between agencies. The Project will therefore use the momentum created by the emergency to reach longer term post-recovery and development goals.

3. **Smallholder farmers (SFs) can be integrated into promising value chains by linking them with market-oriented producers (SECFs).** Through business plans co-financed by the project and commercial banks, SECFs have better access to quality production factors (input kits, technical assistance) and markets while SFs benefit from improved technical knowledge, information, and markets through the SECF. This is an innovative concept in Mozambique. SECFs are elements that can have a dynamic effect for the development of the communities, being producers with some commercial and / or processing experiences that can be reinforced to the advantage of a larger group of producers. As the Project is still in its early years of implementation, an endogenous adjustment in the mechanism of bonding and cohesion between actors is still evolving, but the results look promising. Some small producers have taken the role of intermediation between SECFs and SFs (“Contact SF”) which facilitates communication, distribution of inputs and collection of production.

4. **Young farmers and entrepreneurs who want to start a productive/economic activity need specific training and tailored investment support**. The first business plans supported by SUSTENTA were presented to SECFs who already had experience and were more senior (older than 52 years old). Younger farmers usually have little knowledge and more difficulties in accessing production factors, especially investment financing and operational capital. This category of farmers will benefit from funding windows tailored to young emerging commercial small farmers (junior SECFs) and young entrepreneurs, an instrument that SUSTENTA is currently piloting with the aim of promoting the inclusion of young people in the local and rural economy.

5. **Business plans provide strategic tools to plan and organize SECFs, and to obtain additional financial resources.** In order to receive direct support from the project or to be co-financed by a commercial bank, SECFs need to elaborate business plans that are technically feasible, financially viable, and sustainable. Although slowly, commercial banks have started showing interest in a potential market in rural areas, but it will require further fine tuning of the financing mechanism and long-term involvement. SECFs need time and technical assistance to strengthen their capacity not just as producers but as entrepreneurs, with financial management and procurements skills.

6. **The involvement of the banking sector needs time to build confidence in the agricultural activities developed by small and medium-sized producers.** Commercial[18] banks have not yet participated in the co-financing of business plans for SECFs. So far only the National Investment Bank (NIB), a public funds bank, has co-financed business plans thanks to subsidized interest rates. Nevertheless, a growing interest on the commercial banking side can be promoted by lowering the perceived risk. This can be achieved with (i) an adjustment of the co-financing ratios, (ii) provision of technical assistance built in the business plan costing, and (iii) a more viable partial credit guarantee scheme.

7. **A flexible support to a broad number of value chains allows market opportunities to play a key role in directing investment for producers and small and medium-sized enterprises.** SUSTENTA so far has supported only a small range of crops, such as corn, beans, and soybeans on the basis of domestic and international market demand. Experience seems to show that the productive potential of each intervention area needs to be taken into account, and that other value chains can be fostered allowing greater economic development of the area and the actors involved (producers, companies). The World Bank and other partners have supported the Mozambican Government in various studies and value chain analyses in the districts in which SUSTENTA intervenes.

8. **Financing instruments work better when they are standardized and consistent across projects.** SUSTENTA is implementing a Benefit Financing Plan (BFP) approach that is being replicated by other World Bank-funded projects with MITADER, allowing for a more consistent

[18] The cyclones have not impacted the banking sector, but may slow the process that was slowly building up of banks having confidence in the capacity of farmers to be creditworthy

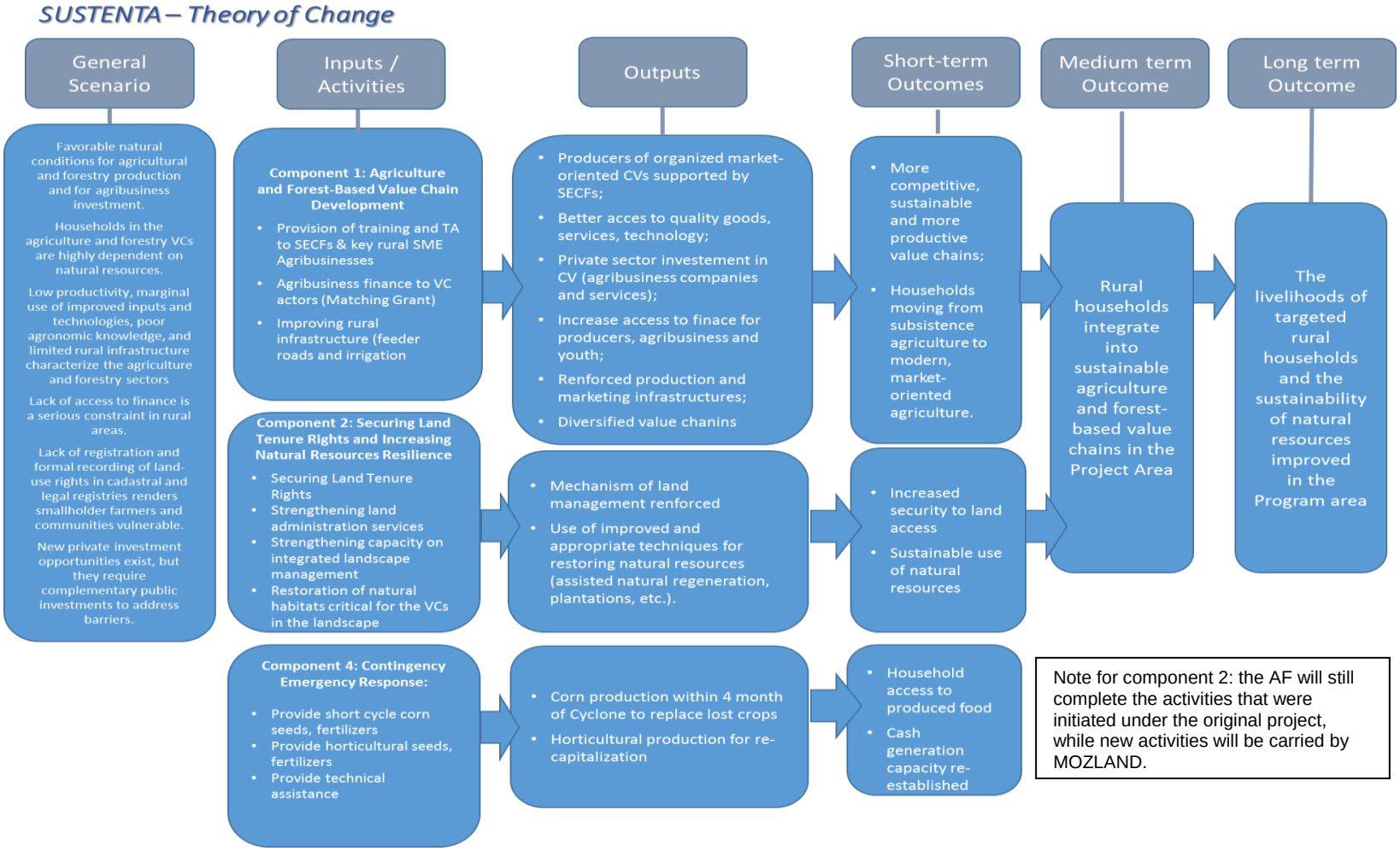
approach. The first project to adopt the BFP approach is the MozBio Second Phase, in the provinces of Maputo (Matutuíne district), Sofala (Marromeu, Cheringoma and Muanza districts) and Manica (Sussundenga district) with an emphasis on value chains linked to natural resources such as fauna, forests, livestock, tourism and fishing.

9. **The program for the regularization of land use rights by communities and families is key to promote investments.** At the design stage, this activity was meant to be complementary to the project design and it is now underway in two districts, one in each province. Early results demonstrated that regularization of land rights are an essential ingredient to promote investment, and the scale up through a dedicated project (MozLand), implemented by the FNDS, will provide a more robust support to families in the whole of the project area.

10. **Project strategy to mitigate and respond to cases related to Sexual Exploitation and Abuse (SEA)** can be strengthened by considering evolving experience in the local context and lessons of international experience. Recognizing that addressing SEA risks is a highly complex matter, the Project has developed and adapted its approach to include and enhance upfront risk assessment, a revamped grievance redress system, and the adoption of a mandatory workers Code of Conduct with stringent compliance requirements. This last item will be based on the parameters developed by the National Road Administration (ANE) and the recently approved Integrated Feeder Road Development Project (P158231) for any rural road improvement.

Annex 3: Theory of Change

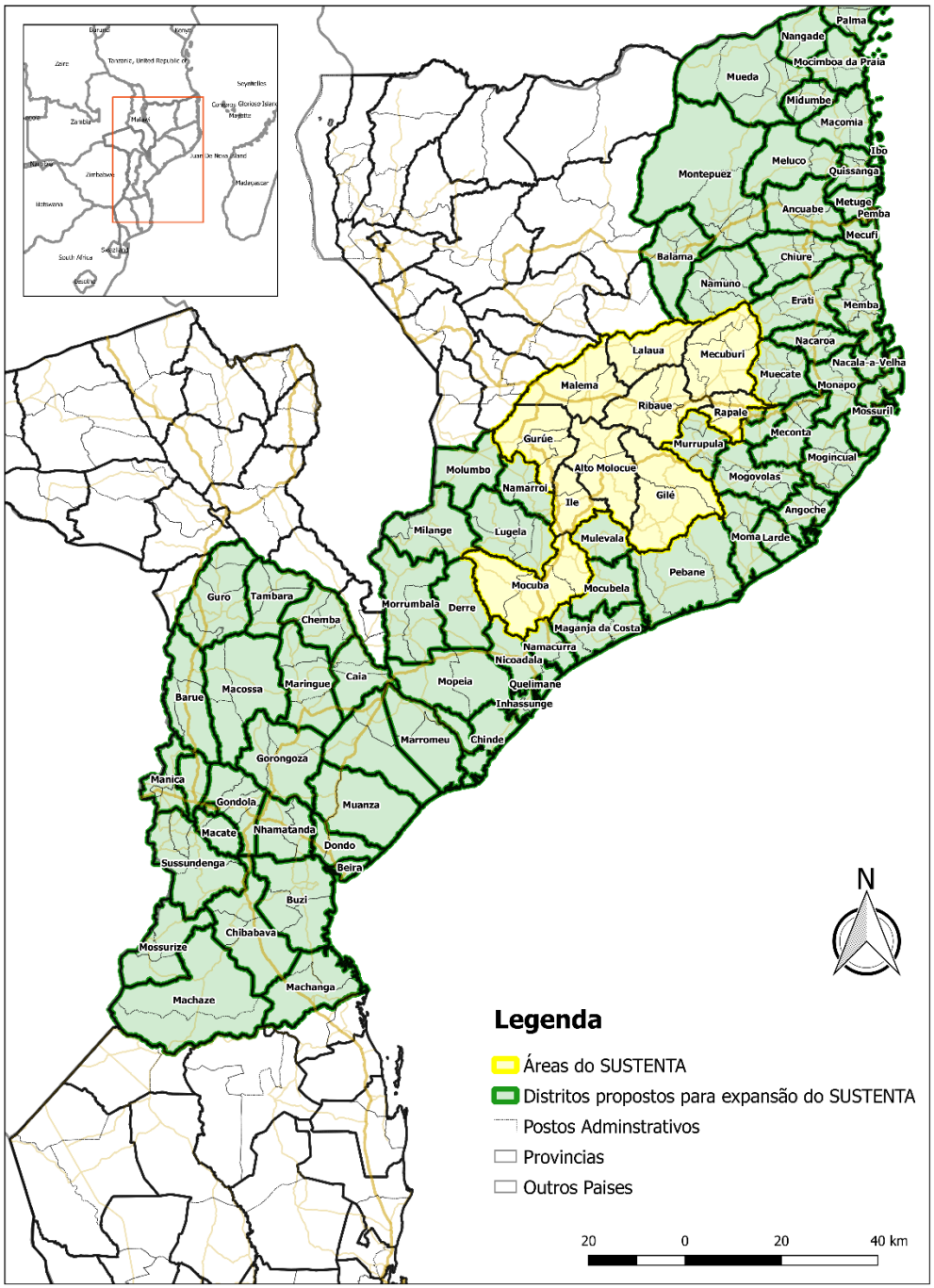
MOZAMBIQUE – Agriculture and Natural Resources Landscape Management Project (SUSTENTA) - Additional Financing (P168940)



Annex 4: Proposed Expansion of Geographical Area

MOZAMBIQUE – Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

FNDS **Mapa de áreas propostas para expansão do Projecto SUSTENTA**



Annex 5: Economic and Financial Analysis

MOZAMBIQUE – Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

Impact of the Project

1. **The objective of the AF – as in the original project - is to integrate rural households into sustainable agriculture and forest-based value chains in the Project** area and, in the event of an Eligible Crisis or Emergency, to provide immediate and effective response to said Eligible Crisis or Emergency. For the purpose of the Project, agriculture and forest-based VC are considered sustainable when they are profitable and do not result in the depletion/degradation of the natural resource base on which they depend (for example, soil and water).

2. **The components are as follow:** Component 1: Agriculture and Forest-Based Value Chain Development (IDA contribution of US$ 39,217,376 + Commercial Banks contribution of US$8,280,000); Component 2: Securing Land Tenure Rights and Increasing Natural Resources Resilience (US$12,115,920); Component 3: Project Coordination and Management (US$ 10,316,434) and Component 4: CERC (10 million). Total project costs amount to US$66 million (this number includes the remaining balance of US$6 million at the time of the analysis from the original IDA projects and US$60 million of proposed additional financing). In order to avoid double counting, it excludes the matching grants and commercial bank lending for the productive subprojects as these costs are already reflected in the crop budgets.

Rationale for Public Sector Provision/Financing

3. **The Project can help build a public good with spillover effects beyond the project area. Directly targeted beneficiaries, already vulnerable, have suffered a further setback due to the Cyclones.** At the same time, while they are characterized by low income levels, they show potential for elevating the scale of production and incomes. By building capacity among SECFs and key SMEs/Agribusiness – two key target groups - the Project enables them to incorporate smallholder farmers that otherwise would be excluded from commercially competitive value chains. This has the potential of addressing the limited public sector extension services with spillover effects beyond the project area.

4. **To enable farmers to invest in enhanced technologies, increasing access to finance in the agriculture sector has the potential to also address an existing market failure.** Farmers have limited access to enhanced agricultural technologies because of lack of availability and inability to obtain commercial investment loans. The current limited access to finance is in part due to commercial financial institutions' lack of familiarity with agriculture and the resulting perception of high risk. Providing matching grants and partial credit guarantees can in the long-term increase familiarity on both the supply-side (financial institutions) and the demand-side (SECFs and SMEs) of the financial sector.

5. **By restoring degraded lands and promoting the adoption of climate-smart agriculture practices among smallholders, the Project will generate significant positive environmental externalities.** These positive externalities include carbon sequestration from the restored areas as well as from the improved agricultural practices and management (e.g., agroforestry, reduced tillage, vegetative cover); and reduced carbon emissions from forest cover loss. Restoration of critical natural areas is expected to increase water flow stability and reduce erosion to downstream water users.

Value Added of WB's Support

6. **This project is a flagship project for the current CPF for Mozambique (2017-2021)** which has the objective of creating more inclusive growth through employment promotion and improving productivity and competitiveness in a sustainable manner. World Bank financing in support of the project would add additional value given the World Bank's position to use cross-sectoral collaboration between the Agriculture Global Practice, the Environment and Natural Resources Global Practice Water Global Practice and Transport and ICT Global Practice.

7. **This project is strongly linked with other ongoing or planned World Bank projects and operations** such as the recently approved MOZBIO 2 (P166802), IRRIGA (P164431), and MOZLAND (P164551) projects.

8. **The World Bank has been the lead player in the response to the Cyclones Idai and Kenneth, mobilizing new resources and activating the IDA CRW.** Mozambique, the country hardest hit by Cyclone Idai, will receive US$350 million in CRW financing to re-establish the water supply, rebuild damaged public infrastructure, re-establish agriculture, and support disease prevention, food security, social protection, and early warning systems in the impacted communities. Of the US$350 million CRW, US$60 million is being allocated for this AF.

Methodology and assumptions

9. **The Economic and Financial Analysis (EFA) quantifies the incremental net benefits resulting from the expansion of SUSTENTA.** This includes the expansion of operations in the existing two provinces as well as the two provinces affected by the Cyclone**.** In order to avoid double counting, on the cost side the EFA excludes the matching grants and commercial bank lending for the productive subprojects as these are already reflected in the crop budgets. The US$10 million under the CERC transferred to FAO for immediate relief operations is not included in the benefit stream due to lack of pertinent information on the household level effects. However, it can be assumed that the rapid response operation has contributed to accelerating the restoration of livelihoods and production capacity of the targeted households.

10. **Efficiency and other cost-benefit indicators.** The cost-benefit analysis is based on crop and farm-level assumptions on yields, input requirements, and prices and costs in constant 2018 currency amounts for the without- and with-project project scenarios.[19] The analysis is based on representative crop budgets and farm models for which incremental net benefits streams are calculated by comparing with and without-project estimates. The aggregate ENPV for the AF is calculated using the World Bank recommended discount rate of 6 percent.[20] In addition, the EIRR and the BCR are also calculated. Other indicators include impact on income for the representative farm households and estimated changes in farm level employment.

11. **Quantified net benefits captured in the EFA model.** Component 1 targets productivity and competitiveness for 50 standard SECFs and 100 junior SECFs. Each SECF will reach on average almost 133 smallholder farmers, a weighted average between the 50 SECFs with outreach to 200 SFs and the 100 junior SECFs with an outreach of 100 SFs. This results in a total of 20,000 additional farmers to be reached under the AF. The total number of direct beneficiaries is equal to 104,000 applying an average number of 5.2 members per household[21]. The assumptions about the impact of the project interventions on cropping pattern, yield and costs include assessing the effect on incremental net income by improving both productivity and resilience of natural resources (i.e. soil and water). To determine the with-project assumptions, the project team took into account improved access to: knowledge of better farming practices, improved seeds, fertilizer, technology (mechanization and irrigation), markets, finance, and registered land rights. Net benefits captured in the EFA model also include those generated by improved post-harvest infrastructure (e.g. on-farm cassava processing facilities). In addition to these benefits captured by direct beneficiaries, economic benefits are estimated from improved carbon balance due to project interventions. Project investments for land administration (Component 2) and project management (Component 3) are necessary to achieve the net benefits captured in other components and are therefore included in the EFA.

12. **Cumulative target values and farmer adoption rates.** Investment costs are allocated across the initial years according to the cumulative target values for targeting beneficiaries as laid out in the Results Framework (12 percent, 13 percent, 18 percent, 24 percent and 33 percent respectively). As also shown in the Results Framework, farmers' adoption of improved agricultural technology promoted by the Project follows a progression of 10 percent per year for five years. As such, the maximum adoption rate is assumed to be 50 percent in the base case. Sensitivity analyses have been conducted for testing increases of the adoption rates.

[19] The foreign exchange rate used is 1 US$ = 60.4 MZN.

[20] Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects (WB, 2016).

[21] In addition, there are (i) at least 1,300 direct beneficiaries from the supported 50 SMEs assuming 5 employees on average multiplied by the average size of rural households; and (ii) beneficiaries from road rehabilitation, and titling and restoration which are conservatively estimated at 39,400. Benefits accruing to these beneficiaries are not quantified in the EFA, Given the direct linkages between farmers and the supported SME as part of the same value chains, some of the benefits of SME investments are indirectly captured in the incremental farm benefits, through increased market demand and better farm gate prices.

13. **Conversion factors for economic analysis.** An economic analysis is concerned with value addition to the gross domestic product and therefore ignores all transfer payments such as taxes, subsidies, grants, loans, interest- and principal payment paid to or received from beneficiaries. Financial prices and costs are therefore converted to economic prices using adjustment factors. In line with the adjustment factors used in the PROIRRI (P164431) Project EFA[22], the shadow cost of labor is 0.75[23]. Because of duties and fees, a conversion factor of 1.11 is applied to the price of maize, while all other crops are valued at the prevailing farm gate prices. To exclude taxes and duties and price contingencies, project investment costs are adjusted by a factor of 0.9.

Financial Analysis

14. **Project interventions increase productivity and gross margins while also reducing the share of production that is consumed at home on smallholder farms.** Tables 5.1 and 5.2 show the expected changes in average gross margins on different crops and farms (excluding post-harvest net benefits and value of improved carbon balance). In order to reflect the heterogeneity of smallholder farmers, two types of farmers were modelled: a smallholder close to subsistence with limited market integration (Smallholder Farmer) and market-oriented smallholder farmers (market-oriented farmer). Revenue increases are expected mainly from increased productivities per hectare and in some cases increased prices due to improved quality and access to different markets. In general, to achieve higher yields, farmers will increase costs of labor, fertilizer, chemicals, tools, mechanization, and irrigation. Gross margins on smallholder farms are lower and typically without fertilizer use, irrigation, and mechanization. Tables 5.11 and 5.22 show the results for different crops for smallholders and market-oriented farmers, respectively. Due to the increase in productivity, the share of production that is consumed at home is reduced, mainly for smallholder farms. Farmers using medium technology/marketed-oriented farmers (e.g. quality seeds, fertilizers, chemicals, mechanization, and irrigation) are expected to see higher increases in gross margins per hectare –between 22 percent percent and 183 percent (Table 5.2).

Table 5.1: Crop Gross Margins Without and With Project – Smallholder Farmers – Financial Analysis

		Maize, Low		Sesame, Low		Soya, Low		Beans, Low		Cassava, Low	
Description	Unit	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P
Yield	kg/ha	900	1,500	500	800	1,100	1,500	862	1,122	7,500	10,000
Increase	% of WO/P		67%		60%		36%		30%		33%
Revenue	US$/ha	149	248	397	636	273	373	276	389	186	248
Costs	US$/ha	129	184	108	161	206	256	117	169	123	180

[22] Mozambique: PROIRRI – Sustainable Irrigation Development Project. Project Appraisal Document. Washington, DC: World Bank. February 18, 2011.
[23] The unemployment rate is equal to 25.04 percent in 2017.

Gross Margin	US$/ha	20	64	290	475	67	116	159	220	64	68
Increase	% of WO/P		219 %		64%		73%		38%		7%
Home Consumption	% of Yield	56%	33%	0%	0%	0%	0%	49%	16%	67%	20%

15. **Increased crop productivity is expected to enable farmers to switch to higher value and irrigated crops.** Depending on the cropping pattern used on different farms, the estimated improvement to farm-level income varies. Table 5.3 shows the assumed cropping pattern without- and with-project for four representative farms.[24] SECFs and market-oriented farmers currently use a large share of their farm area for maize and bean production. The project interventions will induce a switch to higher value and irrigated crops such as vegetables and maize seed.

[24] In reality, cropping patterns are driven by demand and supply. However, the EFA model is deterministic and does not include a dynamic adjustment of cropping patterns between years and different farmers. The assumptions are based on the project team's best judgement.

Table 5.2: Crop Gross Margins Without and With Project – Market-Oriented Farmers – Financial Analysis

		Maize		Sesame		Soya		Beans		Vegetables		Cassava		Seed Maize		Vegetables	
Description	**Unit**	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**W/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**
Yield	kg/ha	1,500	2,500	800	1,000	1,500	2,000	1,122	1,560	15,237	21,822	10,000	13,000	1,500	2,000	15,237	21,822
Increase	% of WO/P		67%		25%		33%		39%		43%		30%		33%		43%
Revenue	US$/ha	248	497	636	828	373	530	389	594	3,163	5,414	248	430	869	1,325	3,081	5,274
Costs	US$/ha	184	317	161	169	256	339	169	214	2,056	2,277	180	329	754	1,182	1,964	2,179
Gross Margin	US$/ha	64	180	475	659	116	191	220	380	1,107	3,137	68	101	116	143	1,118	3,095
Increase	% of WO/P		182%		39%		64%		73%		183%		49%		24%		177%
Home Consumption	% of Yield	33%	20%	0%	0%	0%	0%	16%	12%	5%	3%	20%	15%	7%	5%	5%	3%

Table 5.3: Cropping Pattern Without/ and With Project on Representative Farms and Land Area Included in Analysis, by Crop

Share of farm area (%)	**SECF Cropping**		**Smallholder Cropping**		**Market Oriented Cropping**		**Market Oriented Timber**		**Area by Crop**		
	5.0 ha		**1.5 ha**		**5.0 ha**		**2.0 ha**				
Crop	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**WO/P**	**W/P**	**Change**
Maize, Low			27%	30%					5,985	6,733	13%
Sesame, Low			13%	13%					2,993	2,993	0%
Soya, Low			13%	17%					2,993	3,741	25%
Beans, Low			27%	27%					5,985	5,985	0%
Cassava, Low			13%	13%					2,993	2,993	0%
Maize, Medium	20%	25%			18%	25%			4,495	6,222	38%
Sesame, Medium	6%	6%			5%	4%			1,252	1,011	-19%
Soya, Medium	6%	6%			5%	4%			1,252	1,011	-19%
Onion, Medium	3%	7%			7%	13%			1,712	3,190	86%
Potato, Medium	3%	10%			6%	12%			1,471	2,972	102%
Beans, Medium	10%	8%			9%	8%			2,247	1,991	-11%
Cassava, Medium	5%	4%			5%	4%			1,244	996	-20%
Seed Maize	7%	14%			5%	10%			1,259	2,519	100%
Unproductive	40%	20%	7%		40%	20%			11,451	4,978	-56%
Timber Eucalyptus (8 years)								100%		320	0%
Unproductive							100%		282		-100%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**47,651**	**47,651**	**0%**

Note for Table 1 and Table 2: WO/P = Without Project (Baseline); W/P = With Project. Annual average allowing for a 5-year linear increase; Revenue includes value of home consumption.

16. **The combination of improved yields, technology, irrigation, and change in cropping pattern has the potential to improve farm income significantly such as a 61 percent increase on a smallholder farm and 264 percent and 282 percent increase on market-oriented and SECF farms, respectively.** Table 5.4 only includes farm-level income (i.e. post-harvest value added is analyzed below). Targeted smallholders may see a 61 percent increase in income due to the Project. This translates to US$95 per farm per year or US$18 per household member per year (assuming an average of 5.2 members per farm household). This is 10 percent of the national poverty line of about US$183 per person per year[25]. Market-oriented farmers and SECFs may capture an increase in farm income of 264 percent and 282 percent respectively, with between US$3,440 and 2,321 per farm per year, or US$662-446 per person per day – over twice the national poverty line.

Table 5.4: Farm Models, Gross Margins, Financial Analysis (excludes post-harvest)

		Farm A	Farm B	Farm C	Farm D
		SECF Cropping	Smallholder Cropping	Market Oriented Cropping	Market Oriented Timber
Description		**5.0 ha**	**1.5 ha**	**5.0 ha**	**2.0 ha**
Farm-level		**Avg. US$/farm/year**			
Average Annual Gross Margin, WO/P		824	156	1,304	0
Average Annual Gross Margin, W/P		3,146	251	4,744	892
Change due to Project		2,321	95	3,440	892
	% of WO/P	282%	61%	264%	0%
Per Household Member per year		**Avg. US$ per household member per year**			
Average Annual Gross Margin, WO/P		159	30	251	-
Average Annual Gross Margin, W/P		605	48	912	172
Change due to Project		446	18	662	172
	% of WO/P	282%	61%	264%	0%

17. **Providing investment grants and assistance in negotiating loan terms are necessary to enable farmers to make on-farm infrastructure investments.** It is expected that the Project will enable some SECFs and market-oriented farmers to invest in on-farm equipment to achieve the projected increases in income. For example, vegetable production with the assumed gross margins detailed above, may require that some farmers invest in irrigation equipment. Tables 5.5 and 5.6 summarize the financial analysis of such an investment by a SECF. When considering a cost of US$50,000 per farm with an 85 percent grant from the Project for a three-year commercial loan with a 20 percent interest rate, the farmer can achieve an annual net operating profit from year five of US$3,196. The benefit cost ratio of the investment is 1.9 with a Financial Internal Rate of Return (FIRR, 20 years) of 31 percent. These investment opportunities and access to finance should be closely monitored because providing even a small matching grant and assistance in negotiating better loan terms determines whether the farmers can commit to the investment.

[25] The Mozambique Poverty Line is about US$0.5 per person per day. The World Bank Data. Poverty data WB. Washington, DC, 2011.

Table 5.5: Net Operating Income and Investment Analysis, On-farm Irrigation, Financial Analysis (excludes post-harvest)

Description	US$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Annual Revenue - Crops W/P		4,933	5,387	5,841	6,295	6,749	6,749	6,749
Annual Post-Harvest Cash Flow - Crops W/P		0	0	0	0	0	0	0
Annual Operating Costs - Crops W/P		-2,748	-2,949	-3,151	-3,352	-3,553	-3,553	-3,553
Annual Operating Profit before Tax, Interest, Depreciation - Crops W/P		2,185	2,438	2,690	2,943	3,196	3,196	3,196
Interest on Working Capital - Crops W/P		-132	-142	-151	-161	0	0	0
Interest on Long Term Investment - Crops W/P		-1,500	-1,088	-593	0	0	0	0
Depreciation W/P		0	0	0	0	0	0	0
Net Operating Profit before Tax - Crops W/P		553	1,208	1,946	2,782	3,196	3,196	3,196
Tax W/P		0	0	0	0	0	0	0
Net Operating Profit after Tax - Crops W/P		**553**	**1,208**	**1,946**	**2,782**	**3,196**	**3,196**	**3,196**
On-farm investment W/P		-7,500	0	0	0	0	0	0
Annual Cash Flow (before financing and tax) - Crops W/P		-5,447	2,296	2,539	2,782	3,196	3,196	3,196
Annual Cash Flow (before financing and tax) - Crops WO/P		824	824	824	824	824	824	824
Incremental Annual Cash Flow (before financing and tax) - Crops		**-6,271**	**1,472**	**1,715**	**1,958**	**2,372**	**2,372**	**2,372**

NPV per farm (@20%, 20 Yr.)	3,142	FIRR: (20 Yr.)	31%	FBCR: (20 Yr.)	1.9

Note: On-farm irrigation investment (grant) US$ 50,000 loan with 85% grant over 3 years at 20% interest rate. Working Capital is 24% of operating costs. Farmers pay no income tax.

Table 5.6: Net Operating Income and Investment Analysis, Cassava Processing

Description	US$	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Annual Revenue - Crops W/P		6,197	6,849	7,500	8,152	8,804	8,804	8,804
Annual Post-Harvest Cash Flow - Crops W/P		1,371	2,742	4,113	5,484	6,855	6,855	6,855
Annual Operating Costs - Crops W/P		-3,019	-3,258	-3,498	-3,738	-3,977	-3,977	-3,977
Annual Operating Profit before Tax, Interest, Depreciation - Crops W/P		4,549	6,332	8,115	9,898	11,681	11,681	11,681
Interest on Working Capital - Crops W/P		-145	-156	-168	-179	0	0	0
Interest on Long Term Investment - Crops W/P		-4,000	-2,901	-1,582	0	0	0	0
Depreciation W/P		-2,000	-1,800	-1,620	-1,458	-1,312	-1,181	-1,063
Net Operating Profit before Tax - Crops W/P		-1,596	1,475	4,745	8,261	10,369	10,500	10,619
Tax W/P		0	-516	-1,661	-2,891	-3,629	-3,675	-3,717
Net Operating Profit after Tax - Crops W/P		**-1,596**	**958**	**3,084**	**5,370**	**6,740**	**6,825**	**6,902**
On-farm investment W/P		-20,000	0	0	0	0	0	0
Annual Cash Flow (before financing and tax) - Crops W/P		-15,596	6,176	7,947	9,719	11,681	11,681	11,681
Annual Cash Flow (before financing and tax) - Crops WO/P		1,304	1,304	1,304	1,304	1,304	1,304	1,304
Incremental Annual Cash Flow (before financing and tax) - Crops		**-16,900**	**4,872**	**6,643**	**8,415**	**10,378**	**10,378**	**10,378**

NPV per farm (@20%, 20 Yr.)	20,872	FIRR: (20 Yr.)	45%	FBCR: (20 Yr.)	4.9

Note: Cassava Processing investment (grant) US$ 80,000 loan with 75% grant over 3 years at 20% interest rate. Working Capital is 24% of operating costs. Farmer tax rate is 35%.

18. **The table above shows the financial analysis of another potential small investment in the project area: a cassava processing facility**. In the example, a market-oriented farmer with a cost of US$80,000 per farm with a 75 percent grant to establish a facility processes 2,500 tons of cassava roots each year and produces 625 tons cassava chips. The gross margin is about US$3 per ton of processed roots.[26] The farmer's annual net operating profit when combining both crop production and the processing facility from year five is more than US$6,740. Investment seems profitable when comparing the commercial loan rate of 20 percent with an overall FIRR of 45 percent. The matching grants and assistance in negotiating loan terms could enable farmers to make profitable investments such as these.

Economic Analysis

19. **The NPV is US$76 million (MZN 4.7 billion) discounted at 6 percent over a 50-year period. This generates a BCR) of 3.2 and an EIRR of 19.2 percent with a payback period of nine years. The FIRR is 16.2 percent.** Over a 20-year period, the ENPV is US$37 million (MZN 2.3 billion) and the EIRR is equal to 18 percent, and the EBCR 1.9. The FIRR is 14.7 percent.

20. Adding the economic value of the carbon balance, the EIPV increases to US$100 million (MZN 6.2 billion) and the EIRR to 23.6 percent over a 50 year period. Over 20 years, the ENPV is US$53 million (MZN 3.3 billion) and the EIRR is equal to 22.9 percent. The calculations are based on a net carbon sink of -2,178,608 tCO2-eq over a period of 50 years, resulting in a net balance of - 43,572 tCO2-eq per year (see Annex 6 for more details). The Guidance Note on Shadow Price of Carbon in Economic Analysis (September 2017) recommends "projects' economic analysis use a low and high estimate of the carbon price starting at US$40 and US$80, respectively, in 2020 and increasing to US$50 and US$100 by 2030". Marginal abatement costs are designed to reflect the carbon price necessary to achieve various climate change targets. Carbon market prices are the market value of CO2e emission reductions or sequestration (offsets) that are registered and sold through various market structures. The carbon price used for the EFAs has been conservative, applying the lowest value (US$40 per ton)[27].

Table 5.7: Economic Analysis – key efficiency Indicators

	20 years	50 years
ENPV (US$ million)	**37**	**76**
Economic IRR	**18%**	**19.2%**
Benefit Cost Ratio	**1.9**	**17**
ENPV (US$ million**)**	**53**	**100**
Economic IRR	**22.9%**	**23.6 %**
Benefit Cost Ratio	**2.3**	**3.2**
***Including carbon benefits**		

[26] Adapted from example in the economic and financial analysis of the Pro-poor Value Chain Project in the Maputo and Limpopo corridors (PROSUL).
27 Carbon pricing. WB https://www.worldbank.org/en/results/2017/12/01/carbon-pricing

Table 5.8: Economic Analysis-Estimated annual cash flow benefits and costs including carbon benefits (in US$ million)

Year	Total W/P less WO/P - Farm Level	Total W/P less WO/P - Post-Harvest	Total - Improved Carbon Balance	Total - Livestock Project Investment Costs	Total - Capital Investment Costs	Total - Recurring Costs	Benefits	Costs	Net Benefit - Total - Economic
1	0.1	0.1	0.0	0.0	-5.2	0.0	0.2	-5.2	-5.0
2	0.5	0.2	0.0	0.0	-5.7	0.0	0.7	-5.7	-5.0
3	1.4	0.3	0.0	0.0	-7.9	0.0	1.7	-7.9	-6.2
4	3.0	0.4	0.0	0.0	-10.5	0.0	3.4	-10.5	-7.0
5	5.9	0.5	0.0	0.0	-14.4	0.0	6.4	-14.4	-8.0
6	7.0	0.5	0.0	0.0	0.0	-0.9	7.5	-0.9	6.6
7	8.0	0.5	0.0	0.0	0.0	-0.9	8.5	-0.9	7.7
8	8.9	0.5	0.0	0.0	0.0	-0.9	9.4	-0.9	8.5
9	9.4	0.5	0.0	0.0	0.0	-0.9	9.9	-0.9	9.0
10	9.4	0.5	0.0	0.0	0.0	-0.9	9.9	-0.9	9.0
11	9.4	0.5	0.0	0.0	0.0	-0.9	9.9	-0.9	9.1
12	9.5	0.5	0.0	0.0	0.0	-0.9	10.0	-0.9	9.1
13	9.5	0.5	0.0	0.0	0.0	-0.9	10.0	-0.9	9.1
14	9.5	0.5	0.0	0.0	0.0	-0.9	10.0	-0.9	9.1
15	9.5	0.5	0.0	0.0	0.0	-0.9	10.0	-0.9	9.1
....	(Years 14 to 49 removed for presentation purposes)								
50	9.5	0.5	0.0	0.0	0.0	-0.9	10.0	-0.9	9.1
Total	434.1	23.4	0.0	0.0	-43.7	-39.3	23.4	23.4	374.5
Total (discounted)	115.1	6.8	0.0	0.0	-35.7	-10.1	121.9	-45.8	76.2

ENPV	million USD	76.2
EBCR	ratio	2.7
EIRR	%	19.2%
Payback period		9 years

Sensitivity Analysis

21. **Based on results of the analysis, the AF is economically and financially feasible.** Starting from the base case scenario without carbon benefits, results were tested for sensitivity to variations in benefits and costs and for various lags in the realization of benefits. A delay of two years in the generation of benefits or a decline of 30 percent relative to the base scenario would reduce the EIRR to 14.5 percent and 13.2 percent respectively, substantially above the discount rate. Cost overruns would have a very modest impact, with the EIRR falling to 14.6 percent with a 30 percent increase. In turn, an increase in the adoption rate from 50 to 80 percent will increase the EIRR up to 24.8 percent. Thus, the Project is considered financially and economically robust.

Table 5.9: Results of the sensitivity analysis

Modelling scenario	EIRR
Base scenario	19.2
Delay of benefits	
By 1 year	16.4 %
By 2 years	14.5%
Decrease of benefits	
By 10%	17.3 %
By 20%	15.2 %
By 30%	13.2 %
Increase of benefits	
By 10%	21.2 %
By 20%	23.2 %
Increase of costs	
By 10%	17.4 %
By 20%	15.9 %
By 30%	14.6 %
Increase of adoption rate	
From 50% to 60%	21.7 %
From 50% to 70%	23.5 %
From 50% to 80%	24.8 %

Annex 6: Climate Co-Benefits and Net Carbon Balance Analysis

MOZAMBIQUE - Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

1. **Motivation.** The World Bank Environment Strategy (2012) adopted a corporate mandate to account for the GHG emissions for investment lending. The quantification of GHG emissions is an important step in managing and ultimately reducing emissions as it provides an understanding of the project's GHG mitigation potential and can support sectoral strategies toward low-carbon development**.**

2. **GHG accounting methodology.** The World Bank has adopted EX-ACT, developed by the FAO in 2010[28] to estimate the impact of agricultural investment lending on the GHG emission and carbon sequestration in the project area. EX-ACT allows the assessment of a project's net carbon balance. The carbon balance is defined as the net balance across all GHGs expressed in CO2 equivalents (CO2e) that will be emitted or sequestered due to project implementation (WP), as compared to a business-as-usual scenario (WOP). EX-ACT is a land-based accounting system, estimating CO2e stock changes (i.e. emissions or sinks of CO2) expressed in equivalent tons of CO2 per hectare and year. The tool was designed using mostly data from the Intergovernmental Panel on Climate Change (IPPCC) Guidelines for National Greenhouse Gas Inventories (NGGI-IPCC, 2006), which furnishes EX-ACT with recognized default values for emission factors and carbon values in soils and biomass (the so-called "Tier 1 level" of precision).

3. The GHG calculation is based on the following elements, which are derived from the EFA: (i) agricultural management with a shift from traditional cultivation to improved agronomic practice of annual systems; (ii) afforestation of degraded land; (iii) construction of roads and irrigation systems; and (iv) a slightly increased use of fertilizers, urea and compost.

4. **Assumption in the Ex-Act model.** The Project proposes several activities that were captured with the GHG accounting tool EX-ACT. The assumptions for this analysis were informed by discussions during project preparation stages and are aligned to the assumptions of the EFA. The Project area covers five provinces, namely Nampula, Zambezia, Sofala, Manica and Cabo Delgado. As strategy to improve rural livelihoods and to ensure resilience and sustainability of natural resource management, the Project adopts an integrated landscape management approach recognizing the critical links between different elements from productive agricultural areas to forests, watersheds and protected areas and their buffer zones. The targeted landscape is located in the five provinces; smallholder priority value chains are maize; sesame; beans; soya; and horticulture.

5. **Description of project area.** The project areas are found to be in a tropical and moist climate region; the project implementation is five years and capitalization 45 years; with LaC soil type. Table 6.1 provides an overview of project activities and related assumptions for the "with" and "without project" scenarios. Tier 1 coefficients are used throughout, and linear dynamic of change is assumed. It is assumed that the without project situation is the same as with project, unless otherwise indicated.

28 http://www.fao.org/tc/exact/ex-act-home/en/

6. **Project Activities.** The Project aims to introduce sustainable land management practices and aims to introduce improved agronomic and agricultural management practices in the 47,561 ha for all targeted commodities. Under the improved agricultural practices, the total amount of urea, other N-fertilizer and compost will be increased as well. The Project purchases eight additional cars that are estimated to work 300 days per years and drive around 100 km every day. Car consumption is estimated to be 0,007 m^3 of gasoline per working day. The project will construct 808.5 km of roads until the end of the implementation period.

Table 6.1: Inputs to EX-ACT.

EX-ACT Module Project Activity	Initial Situation	Without Project	With Project
Timber planting	0	0	320 ha
Improved[(a)] maize production	0	0	15,474 ha
Improved[(a)] soya production	0	0	2,375 ha
Improved[(a)] beans production	0	0	7,967 ha
Improved[(a)] sesame production	0	0	4,003 ha
Improved[(a)] onion production	0	0	3,190 ha
Improved[(a)] potato production	0	0	2,972 ha
Improved[(a)] cassava production	0	0	3,988 ha
Not improved production	47,272 ha	47, 272 ha	4,978 ha
Inputs: Gasoline	0	0	16.8m3/year
Infrastructure: Rural roads	0	0	808.5 km
Inputs: Urea	0	175 ton/year	465 ton/year
Inputs: Other N-Fertilizer	0	62 ton/year	152 ton/year
Inputs: Compost	0	952 ton/year	1,030 ton/year

Notes: (a) Improved management practices include: improved agronomic practices, improved nutrient management, no tillage/residue management, water management, manure application.

Results – Net Carbon Balance.

7. **Results.** The project could be a net carbon sink of **-**4,217,573 tCO2-eq over a period of 50 years, resulting in a net balance of - 83,451 tCO2-eq per year. Table 6.2 shows the impact of each activity over 50 years and for one year. The improved crop management constitutes the highest mitigation potential per hectare with a net carbon sink of - 3,842,860 tCO2-eq over 50 years, followed by afforestation activities which represent a decrease of -738,000 tCO2-eq over 50 years. These large sinks overcompensate the incremental source of 364,045 tCO2-eq resulting from increased use of farm inputs, road rehabilitation and construction of irrigation systems.

Table 6.2: Detailed Results of the EX-ACT Analysis

Components of the project	Gross fluxes Without	With	Balance	Share per GHG of the Balance All GHG in tCO2eq CO_2			N_2O	CH_4	Result per year Without	With	Balance
	All GHG in tCO2eq Positive = source / negative = sink			Biomass	Soil	Other					
Land use changes											
Deforestation	0	0	0	0	0		0	0	0	0	0
Afforestation	0	-129,892	-129,892	-92,943	-36,948		0	0	0	-2,598	-2,598
Other LUC	0	0	0	0	0		0	0	0	0	0
Agriculture											
Annual	0	-2,260,519	-2,260,519	0	-2,360,005		99,486	0	0	-45,210	-45,210
Perennial	0	0	0	0	0		0	0	0	0	0
Rice	0	0	0	0	0		0	0	0	0	0
Grassland & Livestocks											
Grassland	0	0	0	0	0		0	0	0	0	0
Livestocks	0	0	0				0	0	0	0	0
Degradation & Management	0	0	0	0	0		0	0	0	0	0
Coastal wetlands	0	0	0	0	0		0	0	0	0	0
Inputs & Investments	331,134	542,937	211,803			109,973	101,830	0	6,623	10,859	4,236
Fishery & Aquaculture	0	0	0			0	0	0	0	0	0
Total	331,134	-1,847,474	**-2,178,608**	-92,943	-2,396,953	109,973	201,316	0	6,623	-36,949	**-43,572**
Per hectare	7	-39	-46	0.4	-50.4	2.3	4.2	0.0			
Per hectare per year	0.1	-0.8	-0.9	0.0	-1.0	0.0	0.1	0.0	0.1	-0.8	-0.9

Annex 7: Synergies with other programs and projects

MOZAMBIQUE - Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

Synergies with World Bank Programs

1. Creating synergies with other projects and programs supported by the World Bank intervening in the same areas and / or policy area is a key guiding principle of the initiatives promoted by SUSTENTA. Synergies can be in terms of geographical coverage, approach and concrete achievements.

2. **SUSTENTA and Smallholder Irrigated Agriculture and Market Access Project (IRRIGA) (P164431)** Effectiveness date: November 30, 2018. The synergy and complementarity between SUSTENTA and IRRIGA refer to the specific competencies of each project and the institutions involved: IRRIGA for irrigation, and SUSTENTA for support to value chains. IRRIGA will be implemented in four provinces (Nampula, the Zambesi, Sofala and Manica) including two covered by SUSTENTA. IRRIGA can rehabilitate irrigation schemes in the districts where SUSTENTA operates in case there is a need for the development of irrigation and dynamic aggregation between SECFs and SFs. The IRRIGA project will mobilize resources for irrigation infrastructure when necessary as well as financial resources to support irrigation management and institutions.

3. **SUSTENTA and Mozambique land administration project (MozLand) (P164551)** Effectiveness date: March 29, 2019. The links between the MozLand and SUSTENTA refer to geographical coverage, as well as the approach and activities in support of provincial cadaster services. The MozLand project coverage is nationwide, thus including the Provinces of Nampula and Zambézia. All land related institutional capacity-building initiatives planned by SUSTENTA in the provinces of Nampula and Zambézia will be taken under the responsibility of MozLand. The two projects foresee the reinforcement of the network of the Provincial Services of Geography and Cadaster (SPGC) with the rehabilitation or construction of service buildings. SUSTENTA would finalize the rehabilitation of two infrastructures in Zambézia and Nampula, and MozLand will take over the construction of all new equipped centers.

4. **SUSTENTA and Mozambique Forest Investment Project (MozFIP) (P160033)** – Effectiveness date: August 9, 2017. The interventions of the two projects are based on the integrated landscape management in the province of Zambezia supporting actors of the value chains. SUSTENTA supports producers and companies of agricultural value chains and forestry products, and encourages actions to restore natural resources. MozFIP supports small and medium-sized producers in the forest value chain. Both projects support producers through business plans, technology training and the diffusion of better techniques and product processing and access to markets. Four districts are shared by the two projects: Mulevala, Pebane, Mocubela and Maganja da Costa.

5. **SUSTENTA and Conservation Areas for Biodiversity and Development Project Phase 2 (MozBio) (P166802)** – Effectiveness date: December 26, 2018. The *SUSTENTA* project and the *MozBio* project share the intervention methodologies, even if they have different geographic coverage. The MozBio intervenes in Maputo's Province, Sofala and Manica in the buffer areas of natural reserves. The two projects use the same matching grant funding manual to support value chains following the SUSTENTA approach and the natural resource management techniques of the MozBio.

6. **SUSTENTA and Integrated Feeder Road Development Project (P158231**) - Effectiveness date: November 29, 2018. The two projects operate in the same Provinces (Zambézia and Nampula), where the Integrated Feeder Road Development Project provides better accessibility to production areas through the rehabilitation of rural roads. There is already an initial list of potential districts for implementation. The Feeder Road project will contribute to SECFs and PAs to increase access to markets through the rehabilitated roads. The algorithm for identification of roads is based on the current productive potential of the areas to be linked to the market in order to reduce their isolation. Enhanced synergy can be procured with guidance in areas where future increase in productivity is expected.

Table 7.1: Synergy between SUSTENTA and other World Bank projects

Project	Execution period	Geographical coverage of the project	Common geographical coverage with SUSTENTA	Synergy with SUSTENTA
Smallholder Irrigated Agriculture and Market Access Project (IRRIGA) (P164431)	2018-2023	Provinces Nampula, Zambezia , Manica, Sofala	Provinces of Nampula and Zambezia	- IRRIGA skills to carry out infrastructures and/or irrigation schemes and to support the irrigation management services. SUSTENTA value chains approach applied to IRRIGA.
Mozambique Land AdministrationProject (MozLand) (P164551)	2019-2024	National	Provinces of Nampula and Zambezia	- Institutional capacity building planned by SUSTENTA in Nampula and Zambézia will be executed for MozLand. - Rehabilitation or construction of SPGC service buildings (SUSTENTA: 2 rehabilitations + 1 new construction; MozLand: 7 new constructions).
Mozambique Forest Investment Project (MozFIP) (P160033)	2017-2022	Provinces of Zambézia and Cabo Delgado	Provinces of Zambézia (Districts of Mulevala, Pebane, Mocubela and Maganja da Costa)	Same approach and support mechanism: - Integrated landscape management supporting value chain actors (agricultural and forestry to SUSTENTA and forestry to MozFIP). - Financing through matching grant mechanism of business plans in forest sector. - Training and dissemination of best technologies.
Conservation Areas for Biodiversity and Development Project (MozBio) (P166802)	2018-2023	Provinces of Maputo, Sofala, Manica	N/A	- Financing through Matching Grant. - MozBio will be based on SUSTENTA's approach to support value chains. - SUSTENTA will be based on experience of MozBio related to natural resources management.
Integrated Feeder Road Development	2018-2024	Provinces of Nampula and Zambezia	Provinces of Nampula and Zambezia	- SUSTENTA supports activities to improve value chains. - The "Roads" project links the production areas to the market.

Project (P158231)				- More synergy will be search in the production areas where the productivity will be expected to increase.

Synergies with other technical and financial partners.

7. In the provinces where SUSTENTA is involved or expected to expand, other government projects are being developed or are planned with the support of several technical and financial partners, among them the European Union, IFAD, USAID, AFD, SIDA, and FAO among others. Synergies with these projects will be developed at the local level through the Provincial Coordination Mechanism within the landscape.

8. In particular, the next European Union program envisages various sectors of intervention, including agriculture and infrastructure. Interventions in the agricultural sector foresee the reinforcement of previous initiatives as well as support for value chains such as seeds and cashew nuts in partnership with FAO and GIZ. In terms of infrastructure, a road rehabilitation project will be developed in collaboration with ANE and will complement the Integrated Feeder Road Development project financed by the World Bank.

Annex 8: SUSTENTA Beneficiaries

MOZAMBIQUE - Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

AF and Adjustments following MTR and Post-Cyclone Assessment

1. The additional financing more than doubles the total number of beneficiaries from 100,500 to 250,000 people, 50 percent of whom are women. The number of households (smallholder farmers) benefiting from Component 1 increases from 20,000 to 40,000, and the number of SECFs from 100 to 250. The mid-term review improved the criteria to better characterize the target groups and the beneficiaries as follows: Youth will be a priority, supporting about 100 young people under 35 years in starting agricultural activities either as junior SECFs or Start-Up SMEs. Young women will also receive preferential support under the Project with at least 30 percent of junior SECFs being young women who will have access to resources to start new productive activities. The groups identified at MTR, coincide with the population hit by the Cyclones, and the AF will reach directly to an estimated 150,000 of them.

Characteristics of the Beneficiaries

2. SUSTENTA beneficiaries participate in agricultural value chains developed in the project intervention areas. Among them, small farmers are the main beneficiaries of the project, which aims to upgrade from subsistence to market-oriented agriculture.

3. SUSTENTA's approach is based on the encouragement and strengthening of SECFs, as aggregators and developers, who establish relationships with groups of SFs operating in the same area / community or neighboring communities.

4. SECFs are in general, individuals who sell most of their production to the market and sometimes process their products. They grow more than five hectares and have an entrepreneurial spirit, disposition and capacity to provide support services to SFs (market linkages, access to inputs, land preparation and other related activities) in order to increase production and productivity. Depending on the age and level of experience in the agricultural sector, two types of SECFs are defined:

- **Senior SECFs** are experienced producers who (i) cultivate five ha or more; (ii) have access to technology and mechanization; (iii) hire workers; and (iv) have good market access and are often likened to off-takers. In addition, in order to be eligible for SUSTENTA's financing, they must be literate and below the age of 55;
- **Junior SECFs** are young farmers who (i) have access to at least five ha of land including as part of the Livelihood Incubation Unit; (ii) show a willingness and inclination for agriculture (example: exposed to agricultural practices or possess family background in agribusiness) and entrepreneurial initiative. In order to be eligible for funding, he or she must (i) have basic or technical training in agriculture or similar areas; (ii) be between 21 and 35 years of age; (iii) live in a geographical area close to an SECF already funded by SUSTENTA and/or close to a mechanization service center; and (iv) be resident in an operating area of SUSTENTA.

5. SF are a heterogeneous group with a lesser degree of market integration (compared to SECFs) and limited access to quality inputs, mechanization, technology, land, financing, markets, and technical assistance. On average, rural households have 5.2 members. Most SFs cultivate less than five hectares (average of three hectares) mainly using family labor but they also need support from neighbors (mutual support) without hiring workers. They generally practice mixed cropping, mainly under rainfed conditions, growing predominantly staple crops and at least one commercial crop (beans, soy, tobacco, etc.). Within the male-headed households, women are involved in all agricultural activities, but rarely have autonomy in the production phase with limitations on access to land, inputs, technology, training and financing. However, specific attention will be paid to female headed households.

6. In practice, the linkage between SFs and SECFs is often facilitated through intermediary farmers, called "contact farmers". These farmers were not part of the design but emerged during implementation as an interface between SECFs and SFs. They facilitate the distribution of inputs and technical assistance to a larger number of SFs linked to the SECF as well as assembly of production serving as collection points. Contact farmers are trusted individuals in their communities. In addition to their logistical function, they play an important role in mediating between SECFs and fellow SFs. and ensuring that commercial agreements are adhered to. Experience suggests that on average Contact SF are responsible for a group of about 25 SFs. This translates into an average of eight contact SFs per senior SECFs (in order to reach a total of 200 SF) and four contact SFs in case of junior SECFs to reach a total of 100 SFs.

7. **Agribusiness Entrepreneurs** are operating small and medium enterprises in the agricultural and forestry value chain in the Project area or intend to engage in such activity (start-ups). These can be initiatives upstream (supply of inputs and services) or downstream (transformation, marketing, etc.) of production. By law a company must have a minimum of five employees.

8. To be eligible, each agribusiness must (i) be a registered entity; (ii) generate benefits to smallholder farmers supported by SUSTENTA; (iii) have a minimum annual turnover of US$10,000; and (iv) have at least five years of operations.

9. To be eligible for being a Start-up SME, the candidate must (i) be young, between 21 and 35 years old; (ii) have proven entrepreneurial skills; and (iii) have an innovative, viable and sustainable business plan.

Table 8.1: Comparison between the initial situation and the MTR/AF

Type of beneficiary	Initial Situation (PAD)	MTR + AF Update
SF	X	X
Women SF	X	X
Contact SF		X
SECFs	X	X
SECFs < 35 yr. - men		X
SECFs < 35 yr. - women		X
SME	X	X
SME < 35 yrs. old		X

Table 8.2: Final number of beneficiaries

		SECFs	SF per SECFs	Total SF	Contact SFs
Category	**%**	**Number**	**Number**	**Number**	**Number**
Senior SECFs	50%	150	200	20,000	1200
Junior SECF (less than 35yo)	50%	100	100	10,000	400
Total		**250**		**30,000**	**1600**
SECFs < 35 yr. women	**30% youth = 15% of total SECF**	**30**			
Total SECF+SF households	**30,200**				
Total Beneficiaries					
Category		**Aggregated number (number of households)**	**Number of people per household**	**Total beneficiaries**	
SF households		40,000	5,2	208,000	
SECF households		250	5,2	1,300	
SMEs		50	5 employees + 5,2 people per household	1,300	
Total beneficiaries				**210,600**	
Other beneficiaries (infrastructure, land, restoration)		**39,400**			
Total				**250,000**	
% women (50%)				125,000	

Annex 9: Proposed Changes to the Results Framework and Monitoring and Evaluation

MOZAMBIQUE - Agriculture and Natural Resources Landscape Management Project (SUSTENTA) Additional Financing (P168940)

		Parent Project	Revised indicators under the AF
		PDO indicators	
1		**Direct project beneficiaries (Number) - (Core)**	**Indicator revised** The end target has been modified from 100,500 to 250,000 people
	1.1	Female beneficiaries (Percentage - Subtype: Supplemental) - (Core)	**Indicator revised** End target unchanged: 50%; sub-indicator is unchanged in value (50%), but given its link to the above PDO Indicator, increase in total number of Female beneficiaries;
2		**Rural households integrated into sustainable agriculture and forest-based value chains in the targeted landscape (Number)**	**Indicator revised** The end target was modified from 20,100 to 40,250 rural households, of which: 250 SECFs and 40,000 SFs
	2.1	Smallholder farm households (SF) (Number) - (Subtype: Breakdown)	**Indicator revised** The end target was modified from 20,000 to 40,000
	2.2	Female smallholder farm households (SF) (Number- (Subtype: Breakdown)	**Indicator revised** The end target was modified from end target 9,000 to 18,000
	2.3	Small Emerging Commercial Farmers (SECF) (Number) - (Subtype: Breakdown)	**Indicator revised** The end target was modified from 100 to 250
	2.4		**New indicator** **"Small Emerging Commercial Farmers - Less than 35 years old (Number) - (Subtype: Breakdown)"** End target: 100 SECFs under 35 years old
	2.5		**New indicator** **"Small Emerging Commercial Farmers – Women less than 35 years old (Number) - (Subtype: Breakdown)"** End target: 30 female SECFs under 35 years old
3		SME Agribusiness (Number) **-** **(**Subtype: Breakdown)	**New Indicator** "SME Agribusiness (Number)" The end was modified from 25 to 50 SME

		Completion of activities agreed in the Annual Strategic Action Plans (SAPs) of the participatory Multi-stakeholders Landscape Forums (MSLFs) (Percentage)	**Indicator has been Marked for Deletion** Moved to Intermediate Results Indicators (Component 2) End target : 75%
		Community Delimitation Certificates Issued (Number)	**Indicator has been Marked for Deletion** Moved to the Intermediate Results Indicators (Component 2)
4		Area restored or re/afforested (Hectare) - (Core)	**Indicator revised** The end target was modified from 1,600 ha to 2,000 ha
		Area restored (Hectares) - (Subtype: Breakdown) (Core)	**Indicator has been Marked for Deletion**
		Intermediate results indicators	
		Component 1 : Agriculture and Forest-Based Value Chain Development	
5		Smallholders farmers implementing VCD activities and being serviced by SECFs (Number)	**Indicator revised** The end target was modified from 20,000 to 40,000
6		Smallholders' satisfaction with services provided by SECFs (Percentage)	**Indicator unchanged** Percentage unchanged: 75%
7		Value Chain Development business plans implemented by SECFs (Number)	**Indicator revised** The end target was modified from 100 to 250
8		SME Agribusinesses implementing approved VCD business plans (Number)	**Indicator revised:** "SME Agribusinesses implementing approved VCD business plans (Number)" The end target was modified from 25 to 50
	8.1		**New Indicator:** "**SME Agribusinesses implementing approved VCD business plans - less than 35 years old – start up (Number)**" End target: 20 start-up (40% of the total SME)
9		Beneficiaries of weather-based crop insurance (Number)	**Indicator revised** The end target was modified from 59,117 to 40,000
10		Area provided with irrigation and drainage services (Hectare) – (Core)	**Indicator unchanged** End target unchanged: 250 ha
		Area provided with irrigation and drainage services - Improved (Hectare) (Subtype: Breakdown) - (Core)	**Indicator Marked for Deletion**
11		Roads maintained (kilometres)	**Indicator revised** The end target was modified from 260 to 1050 Km

12		Clients who have adopted an improved agr. technology promoted by the project (Number) (Core)	**Indicator revised** The end target was modified from 10,000 to 20,000
	12.1	Clients who adopted an improved agr. technology promoted by project – female (Number)) (Subtype: Breakdown) (Core)	**Indicator revised** The end target was modified from 4,000 to 8,000
13		Land area where sustainable landscape mgmt. practices were adopted as a result of the project (Hectare)	**Indicator revised** The end target was modified from 11,600 to 22,000 ha (0.5 ha*40,000 SF =20,000 ha + 2,000 ha (area restored)=22,000ha
14		Smallholder yields in priority value chains (Number) (ton/ha)	**Indicator unchanged**
	14.1	Maize (Number - Subtype: Breakdown)	**Indicator unchanged**
	14.2	Sesame (Number - Subtype: Breakdown	**Indicator unchanged**
	14.3	Beans (Number - Subtype: Breakdown	**Indicator unchanged**
	14.4	Soya (Number - Subtype: Breakdown)	**Indicator unchanged**
		Component 2: Securing Land Tenure Rights and Increasing Natural Resources Resilience	
15			**New Indicator** (moved from PDO indicator) **"Community Delimitation Certificates Issued (Number)"** End target unchanged : 270
16		Land parcels with use or ownership rights recorded as a result of the project (Number) (Core)	**Indicator unchanged** End target unchanged : 150,000
	16.1	Land parcels with use/ownership rights recorded as a result of project-female (Number) (Subtype: Breakdown) - (Core)	**Indicator unchanged** End target unchanged : 90,000 (60% of the total land parcels with use or ownership rights recorded)
17		Client satisfaction with land administration services (Percentage)	**Indicator unchanged** End target unchanged : 75%

18			**New Indicator** **(**moved from PDO indicator) **"Completion of activities agreed in the Annual Strategic Action Plans (SAPs) of the participatory Multi-stakeholder Landscape Forums (MSLFs)"** (Percentage) End target unchanged : 75%
19		Meetings of the Multi-Stakeholder Landscape Forums (MSLF) with participation above the 70% threshold of agreed Forum representatives (Percentage)	**Indicator unchanged** End target unchanged : 80%
20		Land area supported by community land use plans (Hectare)	**Indicator unchanged** End target unchanged : 405,000 ha
		Component 3 : Contingency Emergency Response	
21		Time take for the first disbursement of funds requested by the Government for an eligible crisis or emergency (Weeks)	**New Indicator** End target unchanged : 8