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PROJECT PERFORMANCE ASSESSMENT REPORT

WHAT WORKS

MOZAMBIQUE

Market-Led Smallholder Development in the Zambezi Valley Project

Report No. 104190-MZ
MARCH 30, 2016

1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

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PROJECT PERFORMANCE ASSESSMENT REPORT

MOZAMBIQUE

MARKET-LED SMALLHOLDER DEVELOPMENT IN THE ZAMBEZI VALLEY PROJECT
(IDA-41980, TF-091638)

March 30, 2016

IEG Sustainable Development
Independent Evaluation Group

Currency Equivalents (Annual Averages) during Implementation

Currency Unit = new Mozambican Metical (Mt)

2006	US$1.00	Mt 26.23
2007	US$1.00	Mt 23.64
2008	US$1.00	Mt 25.35
2009	US$1.00	Mt 28.45
2010	US$1.00	Mt 32.39
2011	US$1.00	Mt 26.76
2012	US$1.00	Mt 29.70
2013	US$1.00	Mt 30.00

Abbreviations and Acronyms

BP	Bank Policy
CAEIF	Community Agricultural and Environmental Investment Fund
CBO	Community-based organization
DNPDR	National Directorate for the Promotion of Rural Development
ERR	Economic rate of return
ESMF	Environmental and Social Management Framework
GDP	Gross domestic product
GEF	Global Environment Facility
ICR	Implementation Completion Report
IDA	International Development Association
IEG	Independent Evaluation Group
IEGPS	IEG Public Sector Evaluation Unit
M&E	Monitoring and evaluation
MLSDP	Market-Led Smallholder Development Project
OP	Operational Policy
PAD	Project appraisal document
PDO	Project development objective
PIU	Project implementation unit
PRSP	Poverty Reduction Strategy Paper
PPAR	Project Performance Assessment Report
3ie	International Initiative for Impact Evaluation

Fiscal Year

Government: January 1 – December 31

Director-General, Independent Evaluation	:	Ms. Caroline Heider
Director, IEG Financial, Private Sector & Sustainable Development	:	Mr. Marvin Taylor-Dormond
Manager, IEG Sustainable Development	:	Ms. Midori Makino
Task Manager	:	Ms. Lauren Kelly

Contents

This report was prepared by Lauren Kelly, senior evaluation officer, and Jack W. van Holst Pellekaan, senior consultant, supported by Xavier Justino Muianga, Gaurav Relhan, and Kathryn Steingraber (consultants), who conducted fieldwork for the beneficiary assessment in November/December 2015. The report was peer reviewed by Isabelle Tsakok and panel reviewed by John Eriksson (consultants). Vibhuti Narang Khanna provided administrative support.

Tables

Principal Ratings

Market-Led Smallholder Development in the Zambezi Valley Project (IDA-41980, TF-91638, P093165, P098040)

	ICR*	ICR Review*	PPAR
Outcome	Moderately satisfactory	Moderately satisfactory	Moderately unsatisfactory
Risk to development outcome	Significant	Significant	Significant
Bank Performance	Moderately satisfactory	Moderately satisfactory	Moderately unsatisfactory
Borrower performance	Moderately satisfactory	Moderately satisfactory	Moderately unsatisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEG product that seeks to independently verify the findings of the ICR.

Key Staff Responsible

Market-Led Smallholder Development in the Zambezi Valley Project (IDA-41980, TF-91638; P093165)

Project	Task manager/leader	Division chief/ sector director	Country director
Appraisal	Jeeva A. Perumalpillai-Essex/ Daniel Liborio da Cruz E Sousa	Richard Scobey/ Frank Byamugisha	Michael Baxter
Completion	Pedro Arlindo	Severin Kodderitzsch	Mark Lundell

Market-Led Smallholder Development in the Zambezi Valley Project (IDA-41980, TF-91638 P098040)

Project	Task manager/leader	Division chief/ sector director	Country director
Appraisal	Jeeva A. Perumalpillai-Essex/ Daniel Liborio da Cruz E Sousa	Michel Wormser	Michael Baxter
Completion	Pedro Arlindo	Severin Kodderitzsch	Mark Lundell

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The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEG annually assesses 20-25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEG staff examine project files and other documents, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEG peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. The PPAR is also sent to the borrower for review. IEG incorporates both Bank and borrower comments as appropriate, and the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEG Rating System for Public Sector Evaluations

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Outcome: The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Risk to Development Outcome: The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High, Significant, Moderate, Negligible to Low, Not Evaluable.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Preface

This Project Performance Assessment Report (PPAR) looks at the Mozambique Market-Led Smallholder Development in the Zambezi Valley Project. The project, cofinanced by the Global Environment Facility, was aimed at increasing the incomes of poor, small-scale farmers in five districts in three provinces in the Zambezi Valley through improved agricultural support services, public and on-farm investments, and sustainable land management.

The World Bank approved its contribution to this project on June 20, 2006, with an International Development Association (IDA) credit of US$20 million. The Global Environment Facility contributed US$6.2 million. The government made a commitment of US$0.3 million, and beneficiaries (farmers) were expected to make an in-kind contribution of US$0.9 million. Hence, the total original cost of the project was appraised at US$27.4 million. The project closed in September 2013. The actual total cost of the project was US$28.42, due mainly to an exchange rate appreciation between the SDR in terms of the U.S. dollar.

The report was prepared by Jack W. van Holst Pellekaan, senior consultant, under the guidance of Lauren Kelly, senior evaluation officer, IEG Public Sector Evaluation Unit (IEGSD). The field team was led by Ms. Kathryn Steingraber and was supported by Mr. Xavier Muianga and Mr. Gaurav Relhan. The team undertook a mission to Mozambique between November 20 and December 12, 2015.

Methodology This assessment utilized a mixed-methods approach that included a desk review of documentation (such as appraisal, supervision, and completion reports; the mid-term review; and external project assessments); interviews with key stakeholders, including Bank and project staff and other donor partners; group and individual interviews with subproject recipients and members of the project-financed rural savings and lending groups (see the expanded methodology, including a description of the sampling frame, in appendixes D and E); and an asset verification exercise of a sample of the public and private assets supported by the project (appendix F). The Independent Evaluation Group (IEG) also conducted semi-structured interviews with other relevant stakeholder groups—traders, shopkeepers, and technicians.

IEG is grateful to the government of Mozambique and the World Bank country staff for facilitating a high level of access to the project and its associated sites. IEG thanks the many district administrators and their staff for the generous amount of time and attention that was given to this review. IEG received excellent administrative and coordination support from Clarisse Nhabangue in the World Bank Country Office in Maputo.

Following standard IEG procedures, a copy of the draft PPAR was sent to the relevant government officials and its agencies for their review and feedback, and no comments were received.

Summary

This document is a Project Performance Assessment Report (PPAR) of the Mozambique Market-Led Smallholder Development in the Zambezi Valley Project (MLSDP). The project was approved in June 2006, 15 years after the cessation of the country's brutal civil war, which caused massive economic upheaval and destruction of rural and agricultural infrastructure in the Zambezi Valley. Following the formation of a stable representative government in 1994, Mozambique's agricultural sector and the economy as a whole started to grow rapidly.

Project Objective and Financing. The project was designed, in an extended post-conflict context, to help poor rural farmers in the Zambezi Valley to increase their productivity and incomes and to connect to wider opportunities within the emerging rural economy. The project development objective was "to increase the income of smallholder farmers in the project area." The total appraised cost of the project was US$27.4 million, including a US$20 million International Development Association (IDA) credit, a US$6.2 million contribution from the Global Environment Facility, US$300,000 from the government of Mozambique, and US$900,000 of in-kind support from the project beneficiary farmers. The actual total cost of the project was US$28.42 million, due mainly to an exchange rate appreciation between the SDR in terms of the US dollar.

Project Performance

The relevance of the project's development objective to Mozambique's development strategies and the country assistance strategies was—and remains—high. The project was located in some of the poorest districts of the poorest provinces in Mozambique. The goal of increasing agricultural incomes of smallholders is also in line with the government's Poverty Reduction Strategies, its Decentralization Policy and Program, the Mozambique Agenda 2025, and it's Five-Year Development Program (2004–09). The government's recent Strategic Plan for Agricultural Development places a high priority on stimulating the structural transformation of the agriculture sector. The project's objective was relevant to the Bank's FY04-07 Country Assistance Strategy and to the FY12–15 Country Partnership Strategy (which, among other things, aimed to support decentralization and reduce poverty).

The relevance of the project's design was modest. The project's results framework was inadequate, since it lacked causal chains to show how the project's activities would lead to intermediate outcomes and the development objective. For a project designed to build service delivery capacity in one of the world's poorest countries, the design choice of using country systems was premature and proved to be prone to mismanagement. The project lacked robust and clear participation criteria. This—coupled with the need to distribute capital-intensive infrastructure that required skills and access to labor and land—resulted in elite capture of these project assets. The project also overestimated famers' willingness to sustain the project-supported assets within an environment characterized by weak and risky markets for the agricultural outputs.

Efficacy is rated modest. While a number of the project's outputs were produced, the project fell short of achieving its development objective of increasing the agricultural income of smallholder farmers relative to non-project farmers. According to project assessment data,

the average increase in household income for the project beneficiaries was 36 percent higher than the average recorded at baseline. However, for the control group, the average increase in household income was 69 percent compared with the average income recorded at baseline. Overall, the data examined by IEG reveal that agricultural productivity increased for the treatment area and that farmers achieved additional crop diversity through the provision of enhanced technical assistance and the distribution of improved agricultural inputs and knowledge about improved techniques. But the project failed to tackle the drivers of poverty in the region related to the composition and nature of the agricultural input and marketing chains, which were unstructured, asymmetric, and highly unfavorable for the rural farmer. There was no evidence that the project supported sustained increased marketing opportunities for the target groups.

Project interventions—such as the support for rural savings and lending schemes—helped to smooth consumption and, according to beneficiary interviews, were a vital tool used to respond to shocks (flooding, for example). But the savings and lending schemes in this project did not include seed capital, and expectations were low regarding their ability to support investments or increased productivity. Rather, savings schemes were designed to teach financial literacy and funds were allowed to be redistributed periodically, rather than revolved among members. Public infrastructure was built, and support for rural roads can be linked to the overall modest outcome, but there is evidence that the quality of rural road construction and small bridges was poor, and that there is insufficient maintenance. The construction of individual grain silos can also be linked to the overall modest outcome, because they provided some beneficiaries with an opportunity to earn higher agricultural income by selling grain in the off-season. But many beneficiaries interviewed noted that they used the small silos mainly for smoothing consumption during the lean season. Other investments, such as the design and financing of markets, showed severe weaknesses with regard to their placement and the opportunity for increased profitability (compared with roadside sales). Gender was not considered in the design of the Community Agriculture and Environment Investment Fund (CAEIF), but women were represented well in the rural savings and lending groups.

Efficiency is rated modest. Undocumented estimates of yields and commodity prices were used to estimate the economic rate of return of 18 percent for the small enterprises supported by the project, which is above the 15 percent estimated at appraisal. However, the estimates at project close do not bear this out in relation to the overall outcomes achieved by the project. Other aspects of the project proved highly inefficient: project coordination and monitoring costs increased by 92 percent over the course of the project, owing to management inefficiencies (failed baseline surveys, changing of staff). While a decision to decentralize project management to the districts was relevant and proved effective, the management of this process ate away at the funds originally designed to support subproject investments.

The overall outcome of this project is rated moderately unsatisfactory on the basis of the high relevance of the project's objective, the modest relevance of its design, and its modest efficacy and efficiency.

Bank performances is rated moderately unsatisfactory. For the Bank, ***the project's quality at entry was rated moderately unsatisfactory*** because of inadequate attention to the lessons of previous community-driven development approaches. These lessons would have argued for additional time and attention to targeting, group formation, capacity building, and decision-making capabilities. Insufficient attention was given to the choice of consultants as community facilitators—for example, better behavior was demonstrated by the consultants chosen to support the rural savings and lending schemes than by the firm selected to support the Community Agricultural and Environmental Investment Fund (CAIEF). There was also insufficient attention given to lessons learned from marketing approaches, which require an understanding of culture and behavior, both with regard to individual capacity and policy making. There is no evidence that project design at entry was equipped to tackle the unstructured nature of the value chains and to support the types of marketing interventions that could level the playing field for small farmers. The centralization of project management in Maputo also caused severe implementation delays. ***Supervision was rated moderately satisfactory***. It neglected issues related to monitoring and reporting and the difficulties created by using country systems early on (deemed premature in the project design section). But efforts to decentralize implementation after the mid-term were very responsive to the needs of farmers, and these efforts can be directly linked to the outputs achieved, albeit insufficient, with regard to outcomes.

Borrower performance is rated moderately unsatisfactory. ***Government performance was rated moderately unsatisfactory*** because of the substantial delays in formalizing the restructuring agreed to at the mid-term review. An official request was not made until April 2011, which was over a year after the review. Subsequent protracted discussions about the implementation of the changes contributed to a further delay of 11 months before the restructuring was made effective. ***The performance of the implementing agency was rated moderately satisfactory.***

Lessons

- **Rural institutions can play a key service delivery role in the absence of strong state capacity, but sustained support (throughout and beyond the project period) is needed to ensure good governance and the capacity to provide services to the poor.** In the absence of this support, there is a risk that such institutions may favor some participants over others, may neglect attention to gender and other vulnerable groups, and may lack the capacity to deliver sustained services after project close. The quality of sensitization and training, grounded in local culture, is key to enabling equitable and sustained service delivery. In the case of the MLSDP, IEG found that the poor quality of facilitation services undermined the ability of the rural poor to benefit more from the productive investments made by the project and to engage in productive activities after project close.

- **Social accountability tools are important elements of a project intended to be implemented through village-level organizations.** Monitoring and evaluation systems that include social accountability assessments, including village-level scorecards, can help the project team (client counterpart and the Bank), identify and address underperforming areas, the under provision of services, the relative strength of rural organizations, and other behavioral issues that may be undermining efficacy.

- **A market-based approach to developing the smallholder sector requires an up-front analysis of skills, knowledge, and capacity in order to engage in various value chain activities, such as marketing.** In Mozambique, owing in part to the nascent nature of the country's market-led economy, skills in areas such as efficient marketing were rare in many of the district-level administrations.

- **Simple technologies work best in poor rural communities.** The introduction of complex technology into poor farming areas is risky and unlikely to succeed, because the maintenance of complex systems is almost always unaffordable for poor smallholder farmers.

- **Behavior and incentives, both individual and at the policy level, should be placed at the heart of programs geared toward supporting sustainable land management.** In the case of this project, land tenure security and land rights are central to a farmer's decision to engage in sustainable land, soil, and water management practices, and yet the project tended to focus more on the technical fixes.

Marvin Taylor-Dormond
Director, Financial, Private Sector and
Sustainable Development Department

1. Background and Context

1.1 This is a Project Performance Assessment Report (PPAR) of the Market-Led Smallholder Development Project (MLSDP) in Mozambique. The project was approved by the World Bank's Board in June 2006, roughly 15 years after Mozambique reached a peace agreement to end its brutal civil war in April 1992. The war caused extreme destruction to Mozambique's economy. It wreaked particular havoc on the agricultural sector in the Zambezi Valley. This is where some of the fiercest fighting took place because of its proximity to what was then Rhodesia, which provided the Mozambique Resistance Movement with substantial assistance during the war. Following the formation of a stable representative government in 1994, the agricultural sector and the economy as a whole started to grow rapidly.

1.2 Between 1994 and 2004, the total gross domestic product (GDP) grew by 8 percent annually, albeit from a very low base. During this period, the national poverty headcount index fell from 69 percent in 1996 to 54 percent in 2002, and by 2002/03, rural poverty had declined, from 71 percent in 1996/97 to 55 percent (Republic of Mozambique 2006, table 2). The conditions for income growth were created by economic reforms initiated by the government, as well as the government's success in maintaining national peace and stability.

1.3 The agricultural sector was an important contributor to overall economic growth. This contribution was primarily the result of the introduction of more progressive economic policies, which led to a departure from the collectivization of agricultural production, among other things, and the post-conflict resettlement of refugees in the rural areas. The resulting expansion in the availability of land and labor led to a rapid increase in areas harvested, which prompted agricultural production to grow by an average of 6.8 percent per year from 1992 to 1997, and 4.6 percent per year between 1997 and 2003 (World Bank 2006b, p. 7).

1.4 At design, smallholder farm enterprises in Mozambique as a whole accounted for 99 percent of all rural households and provided 95 percent of agricultural GDP. Most of the smallholders were subsistence farmers with an average of 1.4 hectares of cultivated land per household.[1] The traditional low-input farming practices resulted in generally low yields compared with neighboring countries with similar agro-ecological potential, such as Tanzania and the north of South Africa.

1.5 Smallholders, particularly in the Zambezi Valley, had similar characteristics. Overall, poverty rates throughout the project area at appraisal varied from a high of 66 percent in the Mutarara District in Tete Province to a low of 45 percent in Meringue and Chemba Districts in Sofala Province. Farmers were also highly vulnerable to extreme climatic conditions, which alternated between frequent droughts and floods. Unsustainable exploitation of natural resources as a result of slash-and-burn agricultural systems and the changing climatic patterns were likely to aggravate land degradation and threaten future productivity in the Zambezi Valley. Despite these challenges, the recovery of the agricultural sector in the 1990s at the national level provided hope that the sector would continue to grow and that smallholder incomes could rise. This led to the design of the Market-Led Smallholder Development Project in the Zambezi

[1] Rights to land for farmers typically encompass a much larger area than the cultivated area in the Zambezi Valley because of traditional user rights associated with "shifting agriculture."

Valley, which was intended to increase average farm incomes and, at the same time, address the underlying environmental challenges. The project area involved about one million people.

Market-Led Smallholder Development in the Zambezi Valley Project

Cost, Financing, and Important Dates

1.6 **Project cost and financing**. The World Bank approved its contribution to this project on June 20, 2006, with an International Development Association (IDA) credit of US$20 million. The Global Environment Facility (GEF) contributed US$6.2 million. The government made a commitment of US$0.3 million, and the beneficiaries (farmers) were expected to make an in-kind contribution of US$0.9 million. Hence the total original cost of the project was appraised at US$27.4 million. The actual total cost of the project was US$28.42 million, due mainly to an exchange rate appreciation between the SDR in terms of the U.S. dollar.

1.7 **Dates.** The project was approved by the World Bank Board in June 2006, and it became effective in December of the same year. The project underwent a level II restructuring in May 2012, when the original IDA credit closing date of March 31, 2013, was extended by six months to align with the GEF project closing date. This was done to reflect the full integration of the IDA and GEF activity implementation on the ground and to prevent activities from being terminated in the middle of the agricultural season.

2. Project Objective and Design, and Their Relevance

Project Objective and Its Relevance

2.1 **IDA credit objective and project development objective (PDO) indicators.** The PDO, as stated in the credit agreement, was "to increase the income of smallholder farmers in the Project Area."[2] The project focused on selected districts in the Zambezi Valley in the provinces of Zambezia, Tete, and Sofala. The project appraisal document (PAD) explained that increased incomes would be achieved not only by direct support to smallholder groups and other supply chain participants, but also through the strengthening of capacity at the local level to undertake and manage service delivery within the context of the government's decentralization policy. The key PDO indicator was "to achieve 30 percent average increase in agricultural income of participating project beneficiaries"— smallholder farmer households—including self-consumption, compared with nonparticipating households, by the end of the project.[3]

2.2 **Global Environment Facility objective.** The project's global environment objective, as stated in the Global Environment Facility (GEF) Agreement, was the same as the PDO: "to increase the income of smallholder farmers in the project area" (GEF 2007, schedule 1). A broader statement of intent, located in the PAD, goes further, to say that the GEF grant would be

[2] The interpretation of this objective is reflected in the definition of its indicator in Annex 3 of the PAD (World Bank 2006b) and in the ICR's data sheet (World Bank 2014). The PAD states that the PDO indicator is "30% average increase in agricultural income—including self-consumption." The ICR defines the PDO indicator as "30% average increase in agricultural income of participating beneficiary households (compared with nonparticipating households)."

[3] Neither the project's credit agreement (World Bank 2006a) nor the PAD (World Bank 2006b) made it clear whether the increase in income compared with nonparticipating households was intended to be in real terms. At the same time, footnote 5 on page 11 of the ICR for the project asserts (without any apparent authority) that the 30 percent income increase was intended to be in nominal terms.

used to "limit land degradation, provide predictive capacity for assessing vulnerabilities to climate change, and to improve the ecosystem's resilience towards climate change" (World Bank 2006b, p. 11).

2.3 **Relevance of the project development objective was and remains high.** The relevance of the project's objective to the Bank's Country Assistance Strategy for FY04-07 was **high,** since one of its goals was to build government capacity within the framework of decentralization and reduce poverty through rapid growth based on increased yields (resulting from improved inputs and technologies) in the agricultural sector. The project supported the first and second pillars of the CAS objectives: "raising crop yields through farmers' use of improved technologies" and "an improved structure of service delivery through local authorities." The project's objective continues to be highly relevant to the World Bank Group's current Country Partnership Strategy for Mozambique for fiscal 2012–15, which cites the need for enhanced agricultural productivity and increased employment opportunities in the economy. With respect to the environment, the current Country Partnership Strategy focuses on mitigating the impacts of climate change.

2.4 The relevance of the PDO to the government's past and current policies and programs is also high. Increasing incomes of smallholders was in line with the government's Poverty Reduction Strategies I and II,[4] its Decentralization Policy and Program, Agenda 2025, and Five-Year Program (2004–09). The government's Strategic Plan for the Development of the Agrarian Sector (2011–20) placed a high priority on stimulating the structural transformation of agriculture. This involved increasing agriculture sector productivity, improving the efficiency of labor in agriculture, thereby releasing labor for productive engagement in areas such as rural towns and small cities, as well as in the rest of the national economy. This would establish the conditions for integrating agriculture's labor resources into the rural nonfarm economy. It was recognized that structural transformation of agriculture would require rural producers to be better organized through public investment and more effective rural institutions and organizations.

2.5 More recently, agricultural growth was emphasized again as a priority for the government when it released the National Agriculture Investment Plan in June 2015. The president of Mozambique described the plan as "a central instrument to attract investment to the agriculture, fisheries and livestock, agricultural extension and research of simple processing technologies, food conservation and trade of domestic production" (Republic of Mozambique, Ministry of Agriculture and Food Security 2015). With the plan, the government recognized that targeted investments in rural development are warranted to provide the basis for growth in the rural nonfarm economy, and hence reduce the urban-rural income divide. The plan underlies the continued relevance of the project.

[4] Referred to as the "Action Plan for the Reduction of Absolute Poverty I and II" (PARPA I and II) (Republic of Mozambique 2006), that became the defining economic and social policy framework for the Government.

The project was located in a number of the poorest districts in some of the poorest provinces in Mozambique: Morrumbala and Mopeia Districts in Zambezia Province, Chemba and Meringue Districts in Sofala Province, and in the Mutarara District in Tete Province. Table 2.1 shows the average per capita GDP in all provinces in Mozambique in 2006, when the project was approved. In that year, the average daily per capita GDP levels were $0.8 and $0.9 in Zambezia and Tete Provinces, respectively, and $1.4 per day in Sofala.

Table 2.1. GDP per Capita by Province (2006)

Region/provinces/project districts	*GDP per capita (US$)*
Northern Region	285
Niassa	242
Cabo Delgado	230
Nampula	320
Central Region	292
Zambezia (project in Morrumbala and Mopeia Districts)	304
Tete (project in Mutarara District)	327
Manica	224
Sofala (project in Chemba and Meringue Districts)	517
Southern Region	794
Inhambane	463
Gaza	286
Maputo Province	1,307
Maputo city	1,226
Mozambique	418

Source: National Statistics Institute.

Project Design and Its Relevance

2.6 **Project activities**. The project had four components or groups of activities: (i) community group organization and local institutional strengthening; (ii) agricultural production and marketing development; (iii) community agricultural and environmental investment funds; and (iv) project management. They are briefly described below:

(i) Component 1: Community Group Organization and Local Institutional Strengthening (planned: IDA, US$7.6 million; GEF, US$0.9 million/ actual: IDA, US$5.9 million; GEF, US$0.8 million)**.** This component provided financing for the establishment, capacity building, development, and ongoing support for community-based organizations (CBOs), rural financial services (savings and loan groups), and capacity development for district administrations in the five districts covered by the project.

(ii) Component 2: Agricultural Production and Marketing Development (planned: IDA, US$3.9 million; GEF, US$2.5 million/actual: IDA, US$3.8 million; GEF, US$2.5

million). This component provided financing for agribusiness and market development, strengthening of extension services, applied research, training and demonstrations (such as demonstration plots testing different varieties of maize), and improved agricultural and agroforestry systems.

(iii) Component 3: Community Agricultural and Environmental Investment Fund (planned: IDA, US$5.9 million; GEF, US$1.7 million/actual: IDA, US$4.4 million; GEF, US$1.5 million). This component provided grants financed by the Community Agricultural and Environmental Investment Fund (CAEIF) for agriculturally related public infrastructure (CAEIF-1), small-scale agricultural investment (CAEIF-2), and sustainable land management (CAEIF-3). Funds were mainly used for civil works, consultants, equipment, and materials for building infrastructure, as well as farming and agribusiness investments.

(iv) Project Management (planned: IDA, US$2.0 million; GEF, US$0.4 million/actual: IDA, US$4.1 million; GEF, US$0.5 million). This component provided financing for project management and coordination, as well as monitoring and evaluation (M&E).

2.7 **Project restructuring.** The project undertook a level II restructuring—approved by Bank management—on May 24, 2012. The restructuring had no impact on the project's objective, but it did lead to changes in some indicators and management arrangements. The restructuring reduced the targeted number of savings and lending group members from 12,000 to 6,000. It moved many members of the project management team from Maputo to the project area. And it reflected the remapping of the project-implementing agency, the National Directorate for the Promotion of Rural Development (DNPDR), from the Ministry of Planning and Development to the Ministry of State Affairs. The project's closing date was extended to September 30, 2013.

2.8 **Project design.** The project was designed as a community-driven development program of service delivery. It was designed to support the country's decentralization efforts, with a focus on delivering services to the poor rural smallholder farmers in the central region of the country. It was intended to help build the capacity of the district administrations and their staff to better deliver agricultural services and technical assistance, especially to remote, underserved farming communities. With a focus on capacity building, it was the first project in Mozambique to have been implemented through its own country systems, including financial management, procurement, and monitoring systems.

2.9 This assessment rates the **relevance of design as modest** for several reasons, explained in the following sections.

2.10 **Use of country systems**. The decision to design a program using country systems in 2006 was premature. Although the focus on capacity building at the district level was correct, the effective implementation of the project—and ultimately the successful achievement of the project objective—required a different system of support for many of the project design elements.[5] Project design assumed too readily that the district-level capacity built through the government's Decentralization Policy and Program and the Bank-supported Decentralized Planning and Financing Project had prepared the districts for the management of a complex

[5] The ICR (World Bank 2014, para. 19) pointed out, "design should have considered a longer-term approach to institutional capacity building, particularly in the situation of Mozambique (as a post-conflict state)."

community development project. This led to an over-reliance on the country's decentralization framework, which was too recent a construction to be fully in place and operational. In particular, project design overestimated existing capacity at the district and local levels (in terms of procurement, financial management, and M&E), thereby adversely affecting progress during the first years of implementation. Although an assessment of capacity at the project formulation stage recognized that institutional capacity at the district level was weak, insufficient project activities (for example, further capacity building) were included to address this weakness (IEG 2015, section 3b). As a general principle, project implementation units (PIUs) are not favored, because they seldom lead to strengthening the capacity of government institutions. In this case, however, a separate PIU in place from the start could have been appropriate, because of the limited capacity of the Ministry of Planning and Development staff to manage a large project in a remote region.

2.11 District administrations had difficulties tackling the substantial challenges, such as forming sustainable CBOs and savings and loan groups. To deal with these problems, the project brought in consultants to undertake the tasks and to handle the day-to-day management of extension support to farmers and support to the implementation of the CAEIF. At the central and district levels, the DNPDR was not staffed with project management specialists, it was too remote from the project area, and district administrations had inadequate experience in managing project implementation. A specialized PIU in the DNPDR, headed by a manager with specialized project management staff and competent local office in the project area, would have been a far more relevant design choice.

2.12 **Weak planning and a lack of a causal chain**. The project design failed to articulate a coherent theory of change, supported by a causal frame that would have linked the activities to the anticipated intermediate outcomes, in a manner that would have allowed attribution to the project. This design weakness was pointed out by the mid-term review, but it was not until 2012, just before project close, that efforts were made to retrofit a coherent, populated results frame to the project activities.

2.13 **The project also lacked clear beneficiary selection criteria**. Criteria for beneficiary selection were not included, for example, in the Project Implementation Manual.[6] As a result, district-level staff had a difficult time identifying groups and individuals that were capable of qualifying for the more capital-intensive subprojects. Because of the need for a significant in-kind contribution, access to land, and, in some cases, labor, these major assets were found to be awarded to the more capable and influential members of the targeted areas. A robust stakeholder analysis or political economy analysis could have helped to identify a more appropriate subproject menu with regard to capacity, and could have provided advice on more appropriate methods of distribution.

3. Implementation

3.1 The project was designed to be implemented in two phases over six years (World Bank 2006b, p. 12, para. 3). The first phase was implemented in the districts of Mutarara and Morrumbala, in the provinces of Tete and Zambezia, respectively. These first 2 districts had a combined population of 500,000, with an average population density of 25 persons per square kilometer, living within 8 administrative posts and 21 localities. The second phase was implemented in Mopeia and Meringue Districts in Sofala province, and in the district of

[6] The PAD refers only to a proposed 20,000 beneficiaries in the project area (Annex 3, p. 45).

Chemba, in Zambezia. Combined, the second-phase districts had a total population of 250,000 and a low population density of 12 persons per square kilometer. Poverty rates were—and remain— high throughout the project area, ranging from 66 percent in Mutarara District at the time of design to 45 percent in Sofala District. Literacy rates were some of the lowest in the country, averaging 13 percent across the project area.

Safeguards

3.2 **Environmental safeguards.** This project was rated category B for environmental assessment at appraisal. Actual project investments to be financed by the CAEIF were designed to be demand-driven and could only be determined during project implementation. The project prepared an Environmental and Social Management Framework (ESMF). In addition, four World Bank safeguard policies were triggered: Environmental Assessment (OP/BP 4.01), Pest Management (OP/BP 4.09), Involuntary Resettlement (OP/BP 4.12), and Projects on International Waterways (OP/BP 7.50). The ESMF contained screening procedures for determining if a resettlement plan would be required for any particular investment according to the Resettlement Policy Framework that was prepared according to the requirements of the OP4.12. Both ESMF and the Resettlement Policy Framework were disclosed in the project districts and provinces and in the Bank's Infoshop. The OP/BP 7.50 was triggered because of the possible water withdrawals for the proposed small-scale irrigation projects implemented in the Zambezi River Basin, including the Shire River, a major tributary of the Zambezi River. Notifications were sent to all riparian countries, and none of them objected to the project by the deadline of May 15, 2006. None of the project activities implemented under the project have had any significant adverse social and/or environmental impacts or risks.[7]

3.3 The environmental safeguards coordinated during project implementation included: the introduction and implementation of the districts' land use plans, which were preceded by series of technical trainings on territorial planning aimed at local traditional leaders and government officials. In addition, numerous training activities on sustainable land management/natural resource management were also carried out for various target groups. Partnerships with community radio services were pertinent in raising community awareness of the need to comply with environmental safeguards standards. For example, an increasing number of lower-income and vulnerable groups were involved in the use of improved honey production techniques using box hives, which led to significant reduction of uncontrolled bush fires (World Bank and Republic of Mozambique 2013). According to project documentation, there were no major negative social impacts and conflicts as a result of the project's implementation (World Bank 2014, para. 27).

4. Monitoring and Evaluation

4.1 **Design.** M&E was to be implemented at three levels: (i) internal monitoring by the project's district facilitator; (ii) process monitoring by an independent contractor reporting directly to the Inter-Ministerial Steering Committee; and (iii) impact evaluations carried out at the time of the mid-term review and at project completion. A baseline survey of the project area was to be carried out prior to credit effectiveness. It would include remote sensing and geographic information systems capturing baseline and diagnostic information on natural

[7] Compliance with the safeguards was confirmed in the ICR (World Bank 2014), para. 26, and in the DNPDR/World Bank Joint Mid Term Review (World Bank 2010), April-June 2010, p. 4, para 9.

resource endowments, villages and communities, and infrastructure and establish baselines for project indicators. According to the PAD, these surveys were fully budgeted (World Bank 2006b, p. 20).

4.2 **Implementation.** To implement the M&E system, DNPDR hired a consultant at the start of the project to establish an initial baseline. This process was discontinued, reportedly because of the lack of data at the district level. A second attempt was made to develop a database for the project. The project management unit hired a consultant who reportedly designed an interactive management information system that linked the unit to the districts. The exercise included training of national- and district-level staff in M&E. However, in spite of this exercise, neither the originally planned baseline nor the needed data were collected and utilized in a meaningful way by the project team. A third attempt was made during the life of the project to construct a project baseline, beginning in April 2011, after the mid-term review. But the firm hired was found to have insufficient capacity to carry out the task and the contract. Eventually the DNPDR, in collaboration with the International Initiative for Impact Evaluation (3ie) and the International Food Policy Research Institute, retained the National Institute of Statistics, which, after 15 months of training, undertook a household survey in the project area that has been described as the "midline survey." The funds available for the earlier planned baseline survey were used to finance the National Institute of Statistics again to undertake a second household survey in 2013, referred to as the end-line survey."[8]

4.3 In order to measure progress toward the achievement of the project's development objective, the Bank team, in partnership with the Bank's Development Impact Evaluation team, reconstructed the baseline values and "final" average smallholder incomes in the project area and in districts not benefiting from the project.

4.4 **Use of the M&E data.** There was no evidence uncovered by this PPAR that M&E activities, such as "Process monitoring (which) will be undertaken by an independent contractor reporting directly to the Inter-Ministerial Steering Committee," as planned in the PAD (World Bank 2006b, p. 20), or "community-based M&E as a tool for building the capacity of associations to implement their plans and monitor their impact," also in the PAD (p. 21) were implemented. The Implementation Completion Report (ICR) (World Bank 2014) noted that "The M&E capacity challenges affected the establishment of an effective M&E system for the project. The capacity for integrated planning was also highly constrained and this led to inconsistencies across districts in the implementation of project activities" (para. 24).

4.5 **Overall M&E is rated *modest*.**

5. Achievement of the Project Objective

5.1 Both the IDA- and GEF-financed operations had the same objective: "to increase the income of smallholder farmers in the Project Area." This section will assess the project's achievements in terms of outputs (including intermediate outcomes) and final outcomes.

5.2 The project **modestly** increased the incomes of smallholder farmers in the project area. While a number of the project's planned outputs were produced, the project fell short of achieving its development objective of increasing the agricultural income of smallholder farmers

[8] For sources see the ICR for the MLSDP (World Bank 2014), paras. 23 and 24; and Kondylis, Mueller, and Zhu (2014), Appendix B: Sample Design; Grantee Final Report accepted by 3ie, August 2014. This paper was subsequently published as World Bank Policy Research Working Paper No. 700.

over those of non-project farmers. According to data collected by the end-line survey, the average increase in household agricultural income for the project's treatment group was 36 percent higher than the average agricultural income recorded for that group at the reconstructed baseline. However, for the control group, the average increase in household agricultural income was 69 percent, compared with the average agricultural income recorded at the reconstructed baseline. While the reported 36 percent increase exceeds the PDO target of 30 percent, no explanation is provided by the data collected at end-line as to why the treatment districts performed worse on average than the control.[9] It is also necessary to note that by achieving the PDO target, the project beneficiaries would have still been categorized as poor, since the 30 percent target increase would not be sufficient to propel the target beneficiaries over the internationally agreed poverty line of US$1.25 a day as of project close in 2013.

Inputs, Outputs, and Process-Related Interim Outcomes

5.3 **Building agricultural extension capacity**. At appraisal, the government of Mozambique stressed the need to improve, among other things, the performance of its agriculture extension services (World Bank 2006b, p. 8). The project supported the provision of extension services to farmers in the project area by increasing the number of extension officers available at the administrative posts and by supporting the construction of houses (33) located in the districts, close to the farmer populations. The project also financed the purchase of motor bikes and petrol and provided other operational support.

5.4 IEG interviewed many of the district-level staff involved in the delivery of these services, and in the absence of staff, interviewed 365 project beneficiaries located across 3 of the 5 target regions.[10] While the quality of the services was found to have varied across parts of the project area, there was uniform agreement by project beneficiaries that the availability and quality of the extension services provided under the project was superior to the services provided prior to the project and after the project ended. Farmers interviewed by IEG attested to being provided more and better information on new cropping techniques under the project; they also received improved seed and fertilizer.

5.5 The extension technique utilized was the Training and Visit System. It involved engaging a community facilitator and employed a trainer-of-trainers approach. Community facilitators were given productivity kits that included a bicycle, boots, hoes, and other technical assistance provisions. An impact evaluation of the Training and Visit system in Mozambique, conducted by the Bank's Development Impact Evaluation Team, examined the efficacy of the practice in relation to the sustainable land management goals of the project. The impact evaluation found that the system was effective in influencing the behavior of the community facilitator (in such areas as contour ploughing and micro catchments), but that there was a statistically insignificant impact on farmers' (other than the community facilitator) adoption of sustainable land management techniques promoted by the project. [11]

[9] These results are based on recalculations performed by IEG. See Table 1 of the ICR (World Bank 2014). IEG identified errors with regard to different income baselines and transcription errors for incomes in some districts at the end of the project, compared with the baseline and end-of-project district incomes shown in the project's Implementation Supervision Report, submitted in October 2013.

[10] See appendix E for a description of the methodology used.

[11] Kondylis, Mueller, and Zhu 2014. This experience is consistent with other research on the impact of the T&V extension system.

5.6 **Building Resilient Rural Institutions for Sustained Service Delivery.** Against a target of 660 organizations, the project helped form 733 CBOs. Against a target of 600, 473 groups received at least one asset from the CAEIF. The actual assets awarded per district, compared to the targets, are listed below (Table 5.1)

Table 5.1. Number of CBOs with at Least One CAEIF-Funded Project

District	*Baseline*	*Target*	*Result*	*Increase over target*
		(number)		**(percent)**
Morrumbala	0	288	141	49
Mutarara	0	132	107	81
Mopeia	0	68	85	125
Chemba	0	59	74	125
Meringue	0	53	66	125
Project Area	**0**	**600**	**473**	**79**

Source: IEG 2015, Annex 2.

5.7 The beneficiary assessment conducted by the PPAR was designed to provide information about the quality of group formation, decision-making with regard to asset allocation, the sufficiency of allocations with regard to reported welfare impacts (non-quantified), and the sustainability of the organizations and assets. Group interview questions are attached in appendix D of this report. The sampling frame for the Beneficiary Assessment can be found in appendix E, and the asset verification exercise findings in appendix F.

5.8 IEG found that the CAIEF distributed a mix of public and private sector goods to both groups (CBOs) and to individuals (see appendix B for summary of all investments financed by the CAEIF). Overall, the effort was undermined by a lack of transparent criteria for beneficiary participation. The project lacked a clear and transparent system of identifying and targeting beneficiaries and assessing their capacity. It also connected strategic linkages to the broader rural economy. A program of this nature, that invests in strengthening social capital and offers start-up investment, should ideally be structured as an adjustable program loan, so that capacity can be reinforced and decision making can be linked to broader local economic development aims. Specific findings concerning the different types of assets that were allocated follow.

5.9 ***Access to Markets.*** The project attempted to facilitate market linkages with various agribusiness value chains through promotion of market fairs, where community producers were able to showcase their products to buyers through (i) investments in market access infrastructure, including bridges, drifts (stone or concrete river crossings), and rural access roads constructed to open up the project areas to market opportunities; (ii) promotion of group sales for commodities that traders had indicated they were willing to buy in large quantities; (iii) preparation of consultation meetings on crop sales, attended by farmer groups' representatives and interested traders; and (iv) identification of agribusiness actors that could establish formal contracts with farmers for selected products (for example, honey).

5.10 From the project documentation, IEG found that the borrower believed that attempts to promote formal contractual arrangements between traders and farmer groups "never worked," because of the prevailing spirit favoring individual sales among smallholder farmers, difficulties

in estimating the actual quantities that individual farmers had to sell, and price uncertainties (World Bank 2014, p. 46).

5.11 The construction of markets, supported by the CAEIF, also demonstrated limitations. IEG visited 8 of the 17 village market facilities supported by the CAEIF. In interviews with market participants, IEG learned that there was a universal perception across the sites visited that profits from the CAEIF markets were similar to those earned roadside, and in some cases lower, although the facilities afforded more comfort. There was little understanding of the choice of placement of the markets, some of which were located at very inopportune sites because of land constraints. Before these markets were established, vendors would pursue opportunities, for example, to set up shop near high traffic areas such as bus stops or along main roads and at intersections. Participation in the market also requires a fee, which IEG learned was not used to help maintain the market—none of the markets had an operational or maintenance plan or maintenance fund. None of the amenities brought by the project (such as latrines) were in use at the time of the IEG visit. The markets were also insensitive to gender needs. Dominated by male vendors, women tended to occupy the stalls farthest from the roads, and their activities were usually limited to cooking market-day food and selling beverages.

5.12 ***Grain Storage.*** Another marketing tool supported by the CAIEF was the construction of silos. The CAEIF financed the construction 847 grain silos. These were individually awarded assets (cofinanced in kind by the recipients) capable of storing about a season's worth of grain, and simply constructed of sand and brick. They required in-kind contributions (a thatch shelter, brick, and sand) and were all constructed by a single vendor commissioned by the project. The mission learned that the sand design was relevant to the local environment since the sand, as opposed to cement, would keep the grain cool.

5.13 Although simple in their design, far too many of the silos were found by IEG not to have been sustained. About half of the silos visited—randomly selected by IEG—had fallen into disrepair or were destroyed. In each case, there was evidence that the community member was not correctly maintaining the asset; for example, by keeping it sheltered from sun and rain. The use of silos was part of a change process that required more time and sensitization to support community members' understanding of the benefits of maintaining this important investment. In the successful examples, community members had been taught by technicians how to properly maintain silos, store the grains, and subsequently sell when prices were relatively high during the post-harvest season. In some cases, community members were able to utilize the stored grains for personal consumption during the lean seasons.

5.14 ***Work Animals and Animal Traction Equipment***. The CAEIF also offered the option of investing in work animals and animal traction equipment. Of the villages visited that had opted for this type of asset, IEG found this activity to have been the least successful. Agricultural extension agents, the community facilitators, and farmers lacked training in the use and maintenance of the equipment. However, the observed failure in this area may be attributable to the reported receipt of sick or older animals and poor or second-hand traction equipment, as well as the limited access villages have to veterinary services, including vaccines. One of the challenges with this asset choice can be traced back to project design: the animals and the equipment were distributed as group assets, and communities lacked cohesion and the ability to engage in effective collaborative decision making. In a few cases, for example, community members reported that the animals procured were slaughtered at the behest of some of the members. There were also a few reports of inappropriate behavior on the part of project staff,

who "asked for the animals back" after project close, although owing to the small size of the sample, it is not possible to know how pervasive this behavior was. Interviews with technicians revealed that the project could have benefited considerably from increased technical training in animal husbandry and more investment in veterinary care.

Rural Savings and Lending Groups

5.15 Against a revised target of 6,000 members, the project enlisted some 7,291 persons into rural savings and lending groups. Project documentation indicates that, together, the groups mobilized some $85,458 in savings, representing an average of US$12 per person over the course of the project. Project documentation also indicates that approximately US$104,741 was circulated in loans to members. While IEG was not able to independently validate these figures, the level of loans in excess of savings appears to have been a result of numerous short-term loans, which allowed savings to be used multiple times.

5.16 IEG interviewed 23 savings and loan groups. These interviews included one-on-one questioning with 96 group members. The interviews were conducted to learn more about the "rules of the game" that were imparted but that were unclear from project documentation, to learn about savings and borrowing attitudes and behavior, to observe and learn about gender and other demographic characteristics and behavior, and to learn about the sustainability of the groups after project close.

5.17 IEG learned that the design of the rural savings and lending schemes in Mozambique differed from similar schemes that the Bank has supported. These schemes did not include seed capital, for example, and expectations were very low with regard to the use of funds. Trained by external actors (a French nongovernmental organization), the groups were given a box with multiple keys as a means to engender socially accountable behaviors. The schemes were geared mostly toward promoting a savings culture: members were required to save a small amount of income and then were allowed to draw it out every few months. This differs from other schemes supported by the Bank that are designed to help grow an endowment, to promote lending at small and then larger levels, and to use this training to eventually promote linkages with the formal banking sector.

5.18 Nevertheless, IEG found that, in addition to smoothing consumption and weathering shocks, income saved and then withdrawn was being used for investment in income-generating activities, many of which were in the rural nonfarm sector, such as in petty trade. With regard to lending, feedback from the rural savings and lending group interviews revealed that men appear to borrow more than women, and this was explained by the higher level of (real or perceived) risk that men are willing to take. Women were also required to seek their husbands' permission to take a loan.

6. Efficiency

Economic Rate of Return Analysis

6.1 At appraisal, the project undertook an analysis of economic and financial returns using representative farm models. The same approach was used at project close. At appraisal, the economic and financial net benefits (net present values) were estimated at US$1.8 million and US$0.5 million, and the economic and financial rates of return were, respectively, 15 and 13 percent. At project close, the efficiency analysis indicated that the economic and financial returns remained positive, with discounted net benefits estimated at US$3.74 million and

US$1.6 million, for the economic and financial net benefits, respectively. The ex-post economic and financial internal rates of return were estimated at 18 percent and 14 percent, respectively.

6.2 This assessment questions key assumptions used in the efficiency analysis. For example, estimated yields of maize and rice were much higher (30 and 49 percent respectively) than the yields obtained from "actual activity output estimates" as measured by the project's M&E system. Since, as stated by the economic rate of return (ERR) analysis, a "more than 10 percent reduction in the estimated yield levels [would] lowers the economic rate of return to 11 percent," the reliability of the data matters from the point of view of validating the economic efficiency of this project.

6.3 Other key assumptions in the ERR raise doubts about the veracity of the project's efficiency analysis. It is assumed that a 15-year time horizon is needed in the analysis to "consider the full project build-up of costs," and a 10-year horizon is needed to "consider the full project build-up of benefits, based on individual and group activity over this time horizon." It is unclear why it would take longer to assess costs than benefits.

6.4 Finally, the combination of the varied enterprises listed in Table A3.3 in the ICR used to estimate the total net benefit stream was also not stated in the analysis.

Project Efficiency

6.5 Project costs for management, monitoring, and reporting were 20 percent higher than projected, mainly due to inefficiencies in project implementation. At appraisal, these costs were estimated to be $2.9 million (10.6 percent of total project costs). However, following substantial reallocations from components 1 and 2 of the project, the total management costs increased to $5.9 million (20.8 percent of actual total project costs). Some of these increased management costs are associated with the many unsuccessful attempts to generate baseline data and the reconfiguration of the project after mid-term to respond to implementation delays.

6.6 **This assessment concludes that the project's efficiency was modest.**

7. Outcome

7.1 The overall outcome of the Market-Led Smallholder Development Project in the Zambezi Valley is rated **moderately unsatisfactory**. The **relevance** of the project's objective to the Bank's Country Assistance Strategy and Country Partnership Strategy and the government's development strategy was **high**. The relevance of the project's design in terms of the results framework and use of country systems as a key design feature was rated **modest. Efficacy is rated modest**, since there is evidence that the project's outputs—agricultural support services, public and private subproject investments, and the establishment of rural savings and lending schemes—modestly contributed to overall well-being, but were not sufficient to increase the incomes of the project farmers compared with similar farmers not supported by the project. According to project assessment data, the average increase in household income for the project beneficiaries was 36 percent higher than the average recorded at baseline. However, for the control group, the average increase in household income was 69 percent compared with the average income recorded at baseline. **Efficiency is rated modest.** While questionable data used for estimates of rates of return, together with delays in project

implementation, undermined the confidence in the project's efficiency, it should be acknowledged that this project was implemented under difficult conditions.

8. Risk to Development Outcome

8.1 Despite continued government and local community ownership of the project's objectives and support for its continuation, this PPAR concludes that **risk to development outcome is significant.**

8.2 **Institutional Risks**. Capacity and financial (budget) constraints at the district and local levels (a problem well-identified at appraisal and during the mid-term review) because of chronically low district-level revenues will make it challenging to sustain the provision of public sector services such as road maintenance and agricultural extension for the communities. There is also a significant risk that without adequate support and availability of competitive markets for agricultural and other commodities, as well as investment in market access (including better rural roads and bridges), increased and sustainable agricultural production increases may be limited to a relatively small number of producers with the easiest access to markets, infrastructure, and inputs. This would leave the more remote smallholders behind in terms of their income earning capacity.

8.3 The inclusion of a GEF component in an agricultural project implied that communities should have been provided with the necessary capacity to implement sustainable production practices that allow communities to adapt to the changing contexts brought about by the effects of climate change. However, without continued support to the community groups, most of which lack relevant capacity at the district level, unsustainable land management practices such as periodic slash-and-burn rotations (in the context of adequate land availability) have continued, and have undermined achievements in sustained land management.

8.4 The underlying question facing the achievement of sustained land management among poor farmers was whether there was any incentive for them to engage in more sustainable practices. Slash-and-burn techniques are a traditional land management practice, and for decades they have been a preferred and effective strategy for maintaining productivity of crops. Weak incentives to invest in better land management are rooted in the lack of a system of smallholder land rights and secure land tenure that would make the more sustainable land management practices worthwhile (for an example, see Heath and Binswanger 1996).

9. Bank and Borrower Performance

Bank Performance

9.1 **Quality at Entry is rated as moderately unsatisfactory**.

9.2 The Bank adequately addressed the borrower's priority needs (economic growth and poverty reduction through agricultural development). The project was aligned with other interventions that had been supported by the Bank to achieve these aims—including the Agricultural Services and Rehabilitation Project, the Decentralized Planning and Finance Project, the Roads and Bridges Project, and the Beira Railway Project, which were intended to contribute to stimulating agricultural development in the Zambezi Valley. However, in the case of the Market-Led Smallholder Development Project in the Zambezi Valley, the Bank overestimated implementation capacity, especially at the district level.[12] The prior project on decentralized planning and finance was mostly focused on urban areas, but, overall, the government's decentralization program was still in its early years.

9.3 Efforts were made to incorporate lessons learned from previous community-driven and market-led approaches to agricultural development in Mozambique, but there was a lack of uptake of many of these lessons, many of which require doing business differently in the World Bank. First phases of community-driven or participatory rural development programs require long lead times: Bank teams need to be particularly engaged in helping to develop the rules of the game for the establishment of well-governed rural institutions, both with regard to the selection of participants and leaders and the manner in which resources will be allocated. These project often require tolerance for upfront disbursement lags, during a sensitization phase. Examples of other well-prepared rural development programs have shown that task teams have had to stay engaged both with the client and with Bank management to showcase the merits of this approach in the ultimate achievement of the poverty-related project objective, but also with regard to the sustainability of the approach.

9.4 The blending of the GEF grant reflected an awareness during preparation that sustainable land management was a critical component of ensuring sustained yield increases, especially in light of future risks posed by climate change. However, changing land use practice ultimately has as much to do with incentives and behavior as with the availability of technical assistance. At appraisal, the Bank noted that the arrest and reversal of land degradation practices should be made as demand-driven as possible by linking them to community-level land-use planning. The project focused more on the supply than the demand side.

[12] The earlier Agricultural Services and Rehabilitation Project was implemented between 1992 and 2000 with the objective of increasing production and returns from smallholder food crop and cotton cultivation in the northern provinces of Nampula and Cabo Delgado through the rehabilitation and development of effective agricultural services and the strengthening of institutional capacity. According to the ICR for the project (World Bank 1999), farmers had adopted the use of improved seed varieties, although they complained about the lack of new extension messages. However, because of inadequate evidence on the project's efficacy, its outcome was rated moderately unsatisfactory in the ICR Review prepared by IEG (IEG 2001).

Quality of Supervision

9.5 **Bank supervision performance is rated as moderately satisfactory**

9.6 On average, there were two supervision missions each year. The missions flagged key issues related to capacity challenges, especially in M&E and the fiduciary responsibilities at the district level. However, there was a lack of urgency, as observed from a review of the supervision reports, with respect to the need to address the challenges associated with managing the project from Maputo, and with DNPDR staff that had competing work priorities. Ratings of both progress toward the development objective and implementation were moderately satisfactory, until they were assessed as moderately unsatisfactory in 2010–11. This assessment of the project's difficulties should have come earlier. The 2010 mid-term review had rather belatedly addressed project implementation challenges. Nevertheless, it led to a project restructuring that did not affect the objectives, but incorporated a number of adjustments to the project's implementation arrangements. These included (i) establishment of a dedicated project coordination team, including the hiring of a project manager who would report to the national director for the promotion of rural development; (ii) hiring of additional staff on contract; and (iii) the transfer of some key staff of the dedicated staff to the project area. The changes enabled implementation to be accelerated, and the project was completed with only a six-month delay.

9.7 Following the 2010 mid-term review, the Bank launched a follow-up joint implementation support mission to review project performance and evaluate if enough progress had been made to upgrade the overall project ratings. However, a review of the documentation reveals that by this stage, the focus tended to be on the risks associated with the rating, rather than addressing the underlying constraints. An Implementation Status and Results Report in 2011 noted that "A prolonged period of any Bank co-financed project in a MU status would affect the overall quality of the IDA portfolio in Mozambique, which in turn determines the allocation of new IDA funds to the country."

9.8 **Summary of Bank performance.** The project's quality at entry is rated moderately unsatisfactory because of inadequate attention to the lessons of previous community-driven and market-led approaches, as well as weak project design, which was not sufficiently attuned to the need for more attention to capacity building and close attention to arrangements for efficient project management. Bank supervision is rated as moderately satisfactory. Bank performance is rated **moderately unsatisfactory**, based on the harmonized criteria agreed between IEG and Operations Policy and Country Services, stating that when one rating is in the satisfactory range and the other in the unsatisfactory range, then the overall rating depends on the outcome rating.

Borrower Performance

Government

9.9 **The government's performance was rated as moderately unsatisfactory**. The government of Mozambique supported the implementation of the project through existing policy and development plans at the national, district, and local levels. The government delivered its counterpart contribution and respected its commitment for funds to be directly transferred to the district level. The relocation of the National Directorate for the Promotion of Rural Development (responsible for overall oversight and coordination of implementation) from the Ministry of Planning and Development to the Ministry of State Administration did not seem to adversely affect project implementation.

9.10 However, the government of Mozambique did not respond quickly enough to the need to restructure the project, according to the joint recommendation of the mid-term review in 2010. An official restructuring request was not lodged until April 2011, one year after the mid-term review. Following this, protracted discussions about the decentralization of the program and the introduction of changes related to procurement and financial management resulted in a further 11-month delay before restructuring could become effective. Most of the groups visited were not formed until the second half of the project period; most of the rural savings and lending groups visited were not formed until 2011. These delays resulted in rushed decision making about the funds distributed through the Community Agricultural and Environment Investment Fund, with allocations ultimately awarded to individuals—some of whom should not have qualified to receive the project-supported assets.

Implementing Agency

9.11 **The implementing agency performance is rated as moderately satisfactory.** The Implementing Agency was the National Directorate for the Promotion of Rural Development (DNPDR). It bore a heavy burden because the project was designed to be implemented without a dedicated implementation unit. The Directorate initially struggled to create a dedicated team of staff to be responsible for project implementation. When this team was put in place, it comprised staff that were proactive and responsive to project implementation issues. A further challenge was the continuous relocation of civil servants at the district level, which affected the project because some of the trained staff moved to different districts for other functions and new officers needed to be hired and trained. After the changes introduced at the mid-term review and subsequent restructuring, the team was reportedly better organized. It carried out integrated planning exercises and made sure that the project adhered to implementation procedures and guidelines. A good working relationship with the Bank team was maintained. There was adequate fiduciary oversight through the preparation and submission of audited financial statements and other financial reports (World Bank 2014, para. 68).There were, however, important shortcomings in M&E: the Directorate was unable to operate an effective M&E system to measure progress toward meeting the development objective, as discussed in an earlier section of this PPAR.

9.12 **Summary. Borrower performance was rated as moderately unsatisfactory** because of the government's substantial delay in formalizing the restructuring agreed at the mid-term review. The performance of the implementing agency was rated as **moderately satisfactory**. Overall, the borrower performance is rated **moderately unsatisfactory** based on the harmonized criteria agreed between IEG and Operations Policy and Country Services that when one rating is in the satisfactory range and the other in the unsatisfactory range, then the overall rating should depend on the outcome rating.

10. Lessons

- **Rural institutions can play a key service delivery role in the absence of strong state capacity, but sustained support is needed to ensure their good governance and capacity to provide services to the poor.** In the absence of this support, there is a risk that such institutions may favor some participants over others, may neglect attention to gender and other vulnerable groups, and may lack the capacity to deliver sustained services after project close. The quality of sensitization and training, grounded in local culture, is key to enabling equitable and sustained service delivery. In the case of the Market-Led Smallholder

Development Project in the Zambezi Valley, IEG found that the poor quality of facilitation services undermined the ability of the rural smallholders to benefit more from the productive investments made by the project and to engage in productive activities after project close.

- **Social accountability tools are important elements of a project intended to be implemented through village-level organizations.** M&E systems that include social accountability assessments, including village-level scorecards, can help the project team (client counterpart and the Bank), identify and address underperforming areas, the underprovision of services, the relative strength of rural organizations, and other related behavioral issues that may be undermining efficacy.

- **A market-based approach to developing the smallholder sector requires an upfront analysis of skills, knowledge, and capacity in order to engage in various value chain activities, such as marketing.** In Mozambique, owing in part to the nascent nature of the country's market-led economy, skills in areas such as efficient marketing were rare in many of the district-level administrations.

- **Simple technologies work best in poor rural communities.** The introduction of complex technology into poor farming areas is risky and unlikely to succeed because the maintenance of complex systems is almost always unaffordable for poor smallholder farmers.

- **Behavior and incentives, both individual and at the policy level, should be placed at the heart of programs geared toward supporting sustainable land management.** In the case of this project, land tenure security and land rights are central to farmers' decision to engage in sustainable land, soil, and water management practices, and yet the project tended to focus more on the technical fixes.

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Annex A. Basic Data Sheet

Market-Led Smallholder Development in the Zambezi Valley (IDA-41980, TF-091638, P093165, P098040)

Key Project Data (amounts in US$ million)

	Appraisal estimate	*Actual or current estimate*	*Actual as % of appraisal estimate*
Total project costs	27.4	28.42	103.70
Loan amount	20.0	21.20	105.10
Cofinancing (GEF)	6.2	6.08	98.06
Government contribution	0.30	0.24	80.00
Beneficiary contribution	0.90	0.90	100.00

Cumulative Estimated and Actual Disbursements

	FY07	*FY08*	*FY09*	*FY10*	*FY11*	*FY12*	*FY13*
Appraisal estimate (US$M)	3.51	7.86	12.49	17.62	21.93	24.48	25.50
Actual (US$M)	2.02	3.30	6.54	8.59	13.19	17.29	27.07
Actual as % of appraisal	56	42	52	49	60	71	106
Date of final disbursement: 10/19/2013							

Project Dates

	Original	*Actual*
Initiating memorandum	03/10/2005	05/26/2005
Negotiations	04/19/2006	04/20/2006
Board approval	04/18/2006	06/20/2006
Signing		08/09/2006
Effectiveness	12/28/2006	12/28/2006
Mid-term review	12/31/2009	3/31/2010
Restructuring		5/24/2012
Closing date	3/31/2013	9/30/2013

Staff Time and Cost

Stage of project cycle	Staff time and cost (Bank budget only)	
	Number of staff weeks	US$ (including travel and consultant costs)
Lending		
IDA	96	480,456.73
GEF	--	352,102.21
Total		**832,558.94**
Supervision/ICR		
IDA	322	900,762.87
GEF	--	385,295.20
Total		**1,286,058.07**

Task Team members

Names	Title	Unit
Lending		
Alberto Ninio	Chief Counsel	LEGEN
Anil S. Bhandari	Consultant	AFTG1
Caroline L. Guazzo	Language Program Assistant	AFTCS
Daniel Liborio Da Cruz Sousa	Consultant	AFTA1
Eduardo Luis Leao de Sousa	Senior Economist	AFTA1
Gilberto de Barros	Senior Private Sector Development	AFTFW
Joao Tinga	Financial Management Specialist	AFTME
Josef Ludger Loening	Consultant	MNACE
Katherine Kuper	Sr. Urban Spec.	AFTU1
Leonard John Abrams	Consultant	AFTU1
Luisa Moises Matsinhe	Senior Executive Assistant	AFCS2
Slaheddine Ben-Halima	Consultant	MNAPC
Supervision/ICR		
Amos Martinho Malate	Procurement Analyst	AFTPE
Aniceto Timoteo Bila	Senior Rural Development Specialist	AFTA2
Anne Louise Grinsted	Consultant	AFTP1
Anne Ritchie	Consultant	HDNSP
Antonio L. Chamuco	Senior Procurement Specialist	AFTPE

Names	Title	Unit
Boris Enrique Utria	Country Operations Adviser	LCC5C
Brighton Musungwa	Sr. Financial Management Specialist	AFTME
Caroline L. Guazzo	Language Program Assistant	AFTCS
Celia Faias	Team Assistant	AFCS2
Cheikh A. T. Sagna	Senior Social Development Spec	AFTCS
Daniel Liborio Da Cruz	Consultant	AFTA1
Eduardo Brito	Senior Counsel	LEGAF-HIS
Elvis Teodoro Bernado Langa	Financial Management Specialist	AFTME
Erick C.M. Fernandes	Adviser	LCSAR
Florence Kondylis	Senior Economist	DECIE
Joao Tinga	Financial Management Specialist	AFTME
John A. Boyle	Consultant	AFTWR-HIS
Jonathan Nyamukapa	Sr Financial Management Specialist	AFTME
Luisa Moises Matsinhe	Senior Executive Assistant	AFCS2
Lungiswa Thandiwe Gxaba	Consultant	AFTTR
Luz Meza-Bartrina	Senior Counsel	LEGAM
Mohamed Arbi Ben-Achour	Consultant	AFTN2
Patrick Verissimo	Lead Rural Development	SASDA
Pedro Arlindo	Agric. Economist	AFTA2
Rui Manuel Benfica	Consultant	DECPI
Slaheddine Ben-Halima	Consultant	MNAPC
Susan Hume	Senior Operations Officer	AFTFE
Suzanne F. Morris	Senior Finance Officer	CTRFC-His
Teresa De Jesus S. McCue	Operations Analyst	CAFPP
Tijan M. Sallah	Sector Manager	AFTA3
Leonard John Abrams	Consultant	AFTU1

Annex B. Supplementary Tables on Project Achievements

Number of CBOs Engaged in Project Activities

District	Baseline	Target	Result	Achievement (percent)
Morrumbala	0	317	335	106
Mutarara	0	145	135	93
Mopeia	0	75	104	139
Chemba	0	65	79	122
Meringue	0	58	80	138
Project area	**0**	**660**	**733**	**111**

Number of Members of Savings and Loans Groups

District	Baseline	Target	Result	Achievement (percent)
Morrumbala	0	2,900	4,392	151
Mutarara	0	1,300	1,066	82
Mopeia	0	700	699	100
Chemba	0	600	624	104
Meringue	0	500	510	102
Project area	**0**	**6,000**	**7,291**	**122**

CAEIF Subproject on Public Infrastructure

District	Baseline	Target	Result	Achievement (percent)
Morrumbala	0	49	47	96
Mutarara	0	32	42	131
Mopeia	0	14	9	64
Chemba	0	12	16	133
Meringue	0	11	6	55
Project area	**0**	**118**	**120**	**102**

Number of Productivity Increasing CAEIF Subprojects

District	Baseline	Target	Result	Achievement (percent)
Morrumbala	0	144	497	345
Mutarara	0	66	182	276
Mopeia	0	43	169	393
Chemba	0	30	184	613
Meringue	0	26	164	631
Project area	**0**	**109**	**1,196**	**387**

Number of Sustainable Land Management GEF CAEIF Subprojects

District	Baseline	Target	Result	Achievement (percent)
Morrumbala	0	67	121	181
Mutarara	0	65	91	140
Mopeia	0	40	67	168
Chemba	0	40	70	175
Meringue	0	38	65	171
Project area	**0**	**250**	**414**	**166**

Typology of CAEIF Subprojects

Subprojects	Districts					Total
	Morrumbala	Mutarara	Mopeia	Meringue	Chemba	
	Public Infrastructure					
Drifts	7	1	2	2	4	16
Bridges	9	4	3	0	1	17
Marketplaces	6	4	4	0	3	17
Vaccination facilities	0	18	0	1	0	19
Rural roads	24	15	0	1	8	48
Dip tanks	1	0	0	0	0	1
Subtotal	**47**	**42**	**9**	**4**	**16**	**118**
	Productivity Increasing Subprojects					
Hammer mills	9	9	6	6	12	42
Threshing machines	40	18	15	10	10	93
Small-scale irrigation	2	6	1	2	7	18
Animal traction	26	23	13	8	26	96
Chicken rearing	3	0	0	1	0	4
Goats multiplication	7	8	0	0	0	15

Productivity kits to FCs	16	18	14	17	16	81
Improved silos	194	100	120	120	113	847
Subtotal	**497**	**182**	**169**	**164**	**184**	**1,196**
			Sustainable Land Management/GEF Projects			
Community forestry	18	8	5	5	12	48
Improved honey production	55	61	26	57	43	242
Forestry nurseries	0	0	0	3	3	6
Small-scale fishing	48	22	22	0	12	104
Subtotal	**121**	**91**	**53**	**65**	**70**	**400**
GRAND TOTAL	**665**	**315**	**231**	**233**	**270**	**1,714**

Annex C. List of Persons Consulted

Name	Title	Institution
	Government of the Republic of Mozambique	
Raimundo Matule	National Director, Directorate of Planning and Cooperation	Ministry of Agriculture and Food Security
Vasco Correio Nhabinde	Director National of Studies	Ministry of Economy and Finance
Olegario dos Anjos Banze	National Director, National Directorate of Rural Development (DNPDR)	Ministry of Land, Environment and Rural Development
Isabel Cossa	Deputy Director -DNPDR	Ministry of Land, Environment and Rural Development
Mateus Abelardo Americio Matusse	National Director of Industry	Ministry of Industry and Trade
Antonio Do Rosario Grispos	Chairman/Chief Executive Officer	Commodity Exchange of Mozambique
Edgar Baloi	Executive Director	Commodity Exchange of Mozambique
Eduardo Neves Joao	Executive Director	Commodity Exchange of Mozambique
Danilo Nalá	Director General	Special Economic Zones Office (GAZEDA), Ministry of Planning and Development
Dinis Lissave	Director of Special Economic Zone Services	Special Economic Zones Office (GAZEDA), Ministry of Planning and Development
Sansao Buque	Project Coordinator – Women's Empowerment and Skills Development Project (WESDP II) financed by African Development Bank	Ministry of Gender, Children and Social Welfare
Palmica Antonio	WESDP II project team	Ministry of Gender, Children and Social Welfare
Luis Nhancolo	WESDP II project team	Ministry of Gender, Children and Social Welfare
Agatha Ntauma Bisque	WESDP II project team	Ministry of Gender, Children and Social Welfare
Jacinto Tualufo	Head of Cadaster Department, National Directorate of Land	Ministry of Land, Environment and Rural Development
Mario Rui	Cadaster Department, National Directorate of Land	Ministry of Land, Environment and Rural Development

Lavinia Bechardas	Cadaster Department, National Directorate of Land	Ministry of Land, Environment and Rural Development
Halima Nguice	Planning Department, National Directorate of Land	Ministry of Land, Environment and Rural Development
Multilateral and Bilateral Donors		
Enrico Strampelli	Head of Cooperation	European Union
Geert Ankaert	Counsellor – Economics and Governance	European Union
Els Berghmans	Counsellor – Public Financial Management and Governance	European Union
Sheryl Stumbras	Deputy Director	USAID
Todd Flower	Feed the Future Coordinator - Agriculture, Environment and Business Office	USAID
Theodora B. Dell	Mission Economist	USAID
Alicia Herbert	Country Representative	Department for International Development
Kobi Bentley	Team Leader – Governance and Economic Policy	Department for International Development
Francois- Phillipe Dubé	First Secretary (Development)	High Commission of Canada
Miguel J. Rombe	Development Officer	High Commission of Canada
Cristina Gutiérrez Hernandez	Coordinator General – Spanish Cooperation	Embassy of Spain
Cristina Manzanares	Program Officer – Spanish Cooperation	Embassy of Spain
Andre Ameida Santos	Senior Economist	African Development Bank
Mirianaud Oswald Agbadome	Senior Evaluation Officer	African Development Bank - Abidjan
Carla Felix Silva	Evaluation Officer	African Development Bank - Abidjan
Latefa Cone Camara	Consultant	African Development Bank - Abidjan
International Monetary Fund and World Bank		
Alex Segura Ubiergo	Resident Representative	IMF, Maputo Office
Mark Austin	Program Leader – Sustainable Development	World Bank Country Office
Jan Nijhof	Senior Agricultural Economist	World Bank Country Office
Isabel Neto	Senior Operations Officer – Africa Energy Practice	World Bank Country Office

Pedro Arlindo	Task Team Leader for the MLSDP	World Bank Country Office
Kulwinder Singh Rao	Senior Highway Engineer	World Bank – Washington
Jumoke Jagun-Dokunmu	Country Manager for Mozambique and Angola	International Finance Corporation – Washington
Dieter Fischer	Senior Operations Officer – Smallholder Supply Chains - task team leader for PROTOCEL	International Finance Corporation – Washington
Jane Onoka	Operations Officer	International Finance Corporation - Washington
Private Sector and Academia		
William Grant	Global Practice Leader -Market Systems Development	DAI – London
Daniel Liborio da Cruz E Sousa	Original Task Team Leader for the MLSDP	Retired Bank staff member - Maputo
Paulo Brito	Project Facilitator for MLSDP in Morrumbala for the last 5 years of implementation	Private consultant - Quelimane
Antonio Lino	District Administrator in Murrombala during the final year of implementation	Retired public servant - Maputo
Michael Baxter	Country Director, World Bank Country Office in Maputo during the implementation of the MLSDP – now retired and Managing Director of a private company	OZMOZIS - Maputo
Rafael Uaiene	Assistant Professor in International Development Agricultural, Food and Resource Economics	In-Country Coordinator, Michigan State University – Maputo
Khalid Sultan Ali	Director	Sarah Trading LDA. Nampula
M.Yunuss A. Gafar	Administrator/Manager	Gani Commercial, LDA, Nampula
Shrikantha K. Naik	Country Head	Export Marketing Co (ETG), Nampula
Mohamed Yaseen	General trader of commodities in Morrumbala	

Annex D. Group Interview Questions

Part I

District:	Village:	Group Name:
		Year Formed:
		Number of Participants:
		Does the Group Still Exist? Y/N

Part II

Qualifying questions	**Y**	**N**
Are you a farmer that participated in Sofrico/CAIEF/Banco Mundial project?		**Why Not?**
Were you also a member of savings and lending?		**Why Not?**

Part III: Diagram the Group

One by one, please tell us your role in the group	Mark the gender of the member, by role.	Did you save?	Did you borrow	Note quantities if possible.
1				
2				
3				
Etc.				

Part IV: Analysis of Constraints/Relevance of the Project Response

What do you need the most to increase farm production? Is this the same or have they changed?	What did you receive from the project?	If an asset, what is it, and is it functioning?	Did it generate a profit? Was there reinvestment?	
1				
2				
3				

Part IV. Training and Extension Services

Did you receive training?	In the last few years, what kind of services have you received from the technicians (general CBO)? Extension: Improved varieties of seeds, mulching, crop rotation, fertilizer, other ag extension support	How have you applied these new techniques?	Has there been any change in service provision since 2012 (close of project)? If yes, how so?	Have you added or changed what you grow? *(For example, produced maize, cotton, rice, beans, pigeon peas, cassava; Added: paprika, sesame, vegetables, poultry, small ruminants, honey)*
1				
2				
3				

Part V. Rural Savings and Lending Groups

Are you part of a rural savings and lending group?	Was it started by the Sofrico/CAIEF/Banco Mundial project? What year?	Do you save?	Do you borrow?	What are the loans used for?	Able to invest? In what? (Probe for AG and Non-Ag activities).	Describe the savings and lending rules of the group. (Probe TA)
1 (f)						
2 (m)						
3 (m)						

Annex E. Fieldwork Methodology

The primary objective of the Market-led Smallholder Development Project (MLSDP) was to increase the income of smallholder farmers in selected districts of the Zambezi Valley region of central Mozambique. It was projected that increased incomes would be achieved not only by direct support to smallholder groups and other supply chain participants, but also through the strengthening of local-level capacity to undertake and manage service delivery within the context of the government of Mozambique's decentralization policy. This appendix to the PPAR seeks to contribute to the validation of the relevance, efficiency, and effectiveness of the reported results of the MLSDP in the Zambezi Valley of Mozambique.

The MLSDP was implemented in five districts in the Zambezi Valley—Morrumbala, Mutarara, Chemba, Mopeia, and Maringue.[13] As outlined in the Bank's ICR , M&E capacity challenges during the course of project implementation affected the establishment of an effective M&E system for the project. Consequently, verifiable data at the beneficiary level on the project's impact are not available. This constraint, coupled with a lack of clarity in the Bank's ICR regarding the basis for estimates of income changes for project beneficiaries led IEG to design a participatory evaluation methodology that targeted beneficiary groups to assess the project's performance at the grassroots level. To test the project's critical assumption—that beneficiaries of the MLSDP sustainably increased their incomes as a result of the transfer of project-supported assets and training—IEG conducted fieldwork for two-and-a-half weeks during November and December 2015.

Unit of Analysis and Sampling

Sampling Frame: The unit of analysis for the beneficiary assessment was a purposively selected, geographically stratified set of groups and individuals that received subprojects financed under the project's Community Agricultural and Environment Investment Fund (CAEIF). Based on their relative weight of financing, IEG selected three of the five districts that were assisted under the project for the beneficiary assessment. Morrumbala, Mutarara, and Mopeia received 80 percent of the project's subproject financing. Chemba and Meringue were removed from the sampling frame due to the low level of coverage, remoteness, and time constraints.

[13] These districts are located in the Zabezia, Sofala, and Tete Provinces.

District Name	Share, number of CAIEF projects received (total of 1,058)	Percentage of total groups formed under the project (473 groups formed)
Morrumbala	47%	30%
Mutarara	33%	18%
Mopeia	14%	16%
Chemba	19%	23%
Meringue	5%	14%

At the district level, IEG purposively selected the administrative posts that received the most assets (a combination of public and private) to test the project's theory of change: that a combination of access to finance (rural savings and lending groups), improved infrastructure (such as rural roads, bridges, markets), and productive assets (threshing machines, hammer mills, and the like) could help individuals achieve the project development objective of increasing income. Groups and individuals with reportedly equal access to the project-supported public and private assets were then chosen randomly. IEG interviewed a total of 365 project beneficiaries through 33 group and 22 individual interviews. The fieldwork also included visiting and validating the quality and sustainability—and, in the case of productive assets, the profitability—of a stratified but small number total project-financed subprojects (68 assets).

District	Group assets/interviews	Individual assets	Public infrastructure	Total interviews and asset checks
Morrumbala	14	7	3	24
Mutarara	11	11	5	27
Mopeia	8	4	5	17
Total	**33**	**22**	**13**	**68**

A. Administrative Posts[14]

Morrumbala (11 administrative posts included in the project):

IEG did not visit Guerissa or Derre because these administrative posts combined into a new post named Derre, and IEG did not have the requisite permission to work in this new district. IEG did not visit Sabe administrative post because of security concerns. Of the eight remaining administrative posts, IEG visited six: Morrumbala sede, Boroma, Megaza, Chire sede, Mepinha, and Pinda. These were selected because the other two administrative posts (Muandiua and Chilomo) received no group assets.

Mutarara (4 administrative posts included in the project):

IEG did not visit Doa, because it is a new district and IEG did not have the requisite permission to work there. IEG visited the remaining three administrative posts: Charre, Nhamayabue, and Inhangoma.

Mopeia (7 administrative posts included in the project):

IEG selected six of the seven posts, leaving out Catale because of the relatively low level of project activities. The following six posts were visited by the mission: Campo sede, Lua-Lua, Sambalendo, Rovuma, and Mopeia sede.

B. Village/Beneficiary/Group:

After selecting the administrative posts to be visited by the mission, IEG selected the villages and groups to visit according to the following criteria: wide coverage of different asset typologies (IEG interviewed groups and individuals that received each type of asset); and villages that received a public infrastructure investment (especially markets, because these accounted for a large percentage of infrastructure expenditure) financed by the project. It should be noted that, in some cases, villages that had reportedly received assets by the project had not received them, and therefore IEG group interviews included some groups (especially in Morrumbala) that only received training and a savings and lending scheme.

Assessment Limitations:

Not all villages of Morrumbala and Mutarara Districts could be included in the assessment as originally intended, because certain villages had been absorbed into newer districts. Covering these villages would have necessitated further administrative procedures at the provincial level (for purposes of seeking the government's permission and facilitation for these surveys), which was not possible due to time constraints

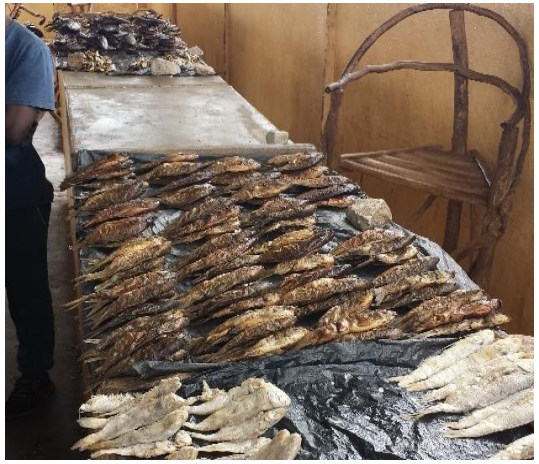
[14] After district, the next administrative division is "posto administrativo," or administrative post (there are 405 in Mozambique). The next and lowest geographical level of central state administration is locality.

.ANNEX F.

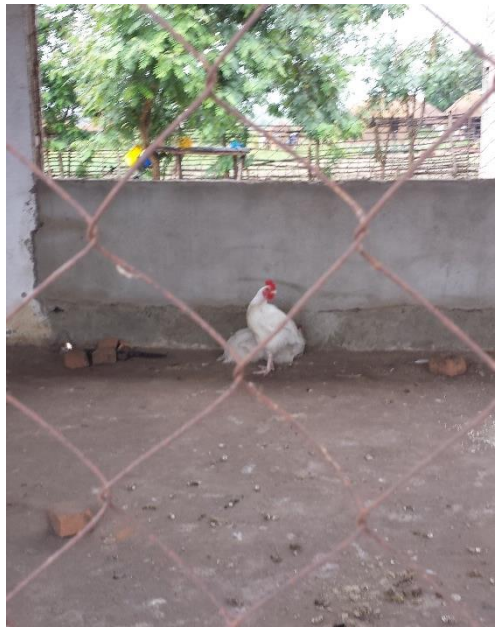
Annex F CAEIF Asset Verification Information from Beneficiary Assessment

Region	Morrumbala	
Locality	Unknown location in the project area within a one-hour drive of Morrumbala	
CAEIF asset type	Market	
Individual or community infrastructure	Community infrastructure	Asset functional? Yes, but the market functions only one day a week. On the day of the visit by the beneficiary assessment team a few merchants were selling fish from Mopeia. .

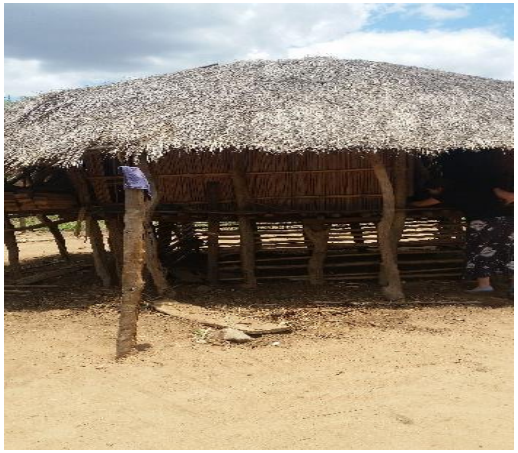
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	This market, a concrete structure with a roof and concrete selling tables in rows, was built by the project in October 2013. No information could be obtained about the benefits of having this market in this location on the outskirts of a village. However, it is within 25 yards of the main road, and those selling fish at the market stated that selling along the road is more lucrative than selling in the new market. On market day vendors pay Mt 5 per day to rent a stall. The revenue goes to the district administration.
Other Notes	None of the approximately 25 young men who joined the discussion with the beneficiary assessment team had found off-farm employment in the vicinity or in Morrumbala. If low-skilled jobs were found, the daily wage was typically Mt 50 per day (about US$1). When asked about the credit, the prospect of having credit facilities brought an enthusiastic response. The universal reason for using credit would be for financing marketing activities.

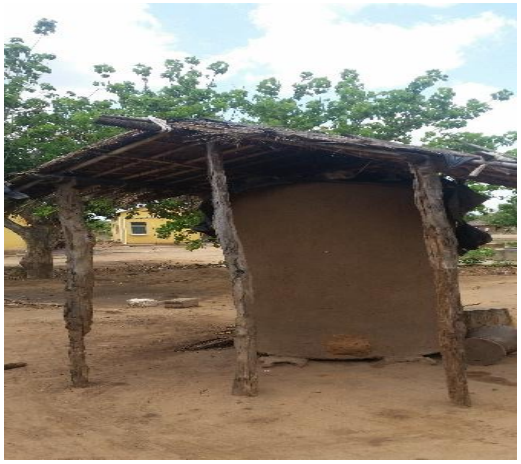


Region	Morrumbala	
Locality	Morrumbala-sede	
CAEIF asset type	Chicken/rabbit coop	
Individual or community infrastructure	Individual (male)	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	This entrepreneur's principal job is raising the rabbits and chickens. He currently has only three chickens and three rabbits, but will soon get more chicks (from companies in Malawi, Quelimane, Nambula). Buys feed from either Maputo or Chimoya; wants to learn to make his own feed to sell using local grains. He buys a chick for Mt 30 and sells it for Mt 140.	
Other Notes	Individual paid 40 percent (Mt 300,000) of the total cost for the structure. He was able to invest this by using savings from his professional skills (computer equipment repair). He says he heard about the project through the government in Morrumbala, where he owns two homes, and that he qualified under a criterion relating to entrepreneurship. To his knowledge, there were four similar coops financed by this project in and around Morrumbala; only two are still operational. The coop was designed and planned to have a meat processing and conservation facility (the coop is quite large) but this did not get financing. He needed the processing because most restaurants prefer processed meat and so that he can meet hygiene and food safety standards.	

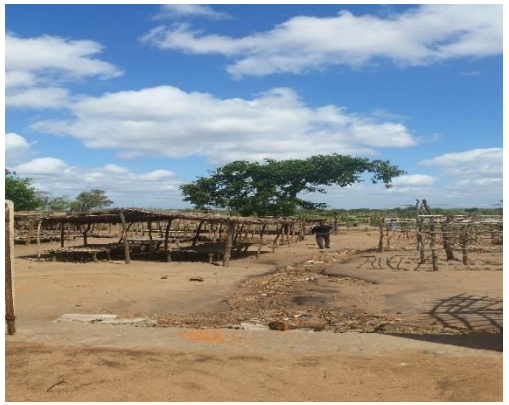


Region	Morrumbala	
Locality	Ries	
CAEIF asset type	Grain silo	
Individual or community infrastructure	Individual (woman)	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	She currently has her third harvest in the silo. It has been very useful for her because her maize is conserved and she can get more money for it by selling it later. She does not share the storage with anyone, it is just her maize.	
Other Notes	Owner present, silo covered and well maintained—currently full of maize. Owner showed us where she used to keep maize, in thatch and pole structure, not as protected from the elements, and the water could get in. The silos are constructed of brick on the inside and a layer of sand on the outside. The project provided the top and bottom of silo and covered construction costs. The owner provided the roof/covering and some construction materials. If she could make any changes, she would like a bigger silo. Top picture is maize storage before project, bottom picture is covered silo.	





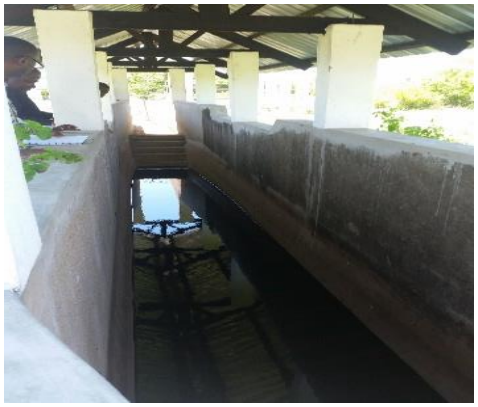
Region	Morrumbala	
Locality	Muandiua	
CAEIF asset type	Market	
Individual or community infrastructure	Community infrastructure (interviewed group of women gathered at market)	Asset functional? Beneficiaries reported yes, no one was present because it wasn't market day
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Previously the women sold the same things (beer and ready-made foods) at a market down the road, but they much prefer selling at the market, and they reported that they make more money at the new market than they previously did.	
Other Notes	Few people at market; it was not market day and there were heavy rains the day before. Market days rotate on different days of the week around the district. Local residents indicated they have market day on Thursday and the market is full; people come from surrounding villages to buy and sell fish, clothes, shoes, and other things needed for their households. IEG spoke with a group of women who sell food and beer for the seller and buyers at the market. The best stalls at the market are in the covered structure constructed by the project, or in the outside stalls behind the structure. A few reported that they sold inside. Daily fees (Mt per stall) are collected and by local government, the government cleans the marketplace the day before the market. The record of collections indicated that between 50 and 100 stalls are occupied on market days. Women typically sell bread, bear, and ready-made food, while men sell meat, fish, beans, grains, and vegetables. These vegetables came from Malawi. There is no water at the market (they fetch it from the hospital across the street), and although the project constructed bathrooms, they were not maintained, and now they are too dirty and no one uses them. The women reported that they were not part of the decision-making process; they thought this was because they were too busy with house duties. They do not know who was consulted in the design of the marketplace. When asked how they would improve the marketplace, they were not sure.	



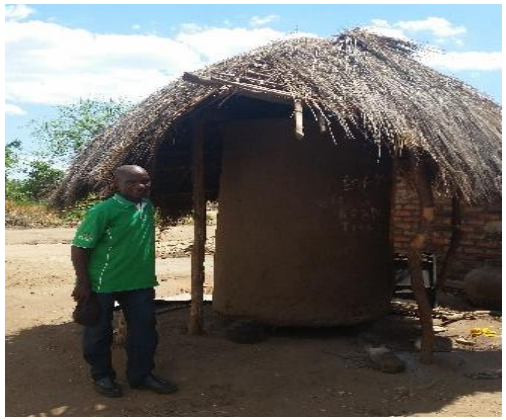
Region	Morrumbala

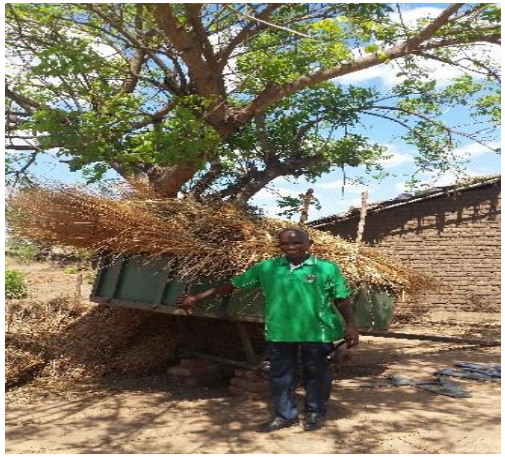
ANNEX F

Locality	Megaza-Sede	
CAEIF asset type	Livestock tank/veterinary facility	
Individual or community infrastructure	Community infrastructure	Asset functional? Reportedly yes; does not seem recently used. See notes below
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The facility is reportedly free to use for all community members and helps them with the control of cattle ticks, which have a serious detrimental effect on cattle and may lead to their death. The crush is used to facilitate the vaccination of cattle. Because this facility provides a service and prevents cattle mortality, it could lead to increased incomes.	
Other Notes	This structure was here from colonial times, and the project financed the repair of the structure in 2013. The community did not pay any contribution for repair. The demand for this project came from the community, and the local government was looking for partners to assist with the reconstruction. The project is currently in use, but only recently became functional because after it was constructed the nearby well dried up, so now the community has to haul in water from nearby sources. It appears that the infrastructure was not functional for quite some time.	

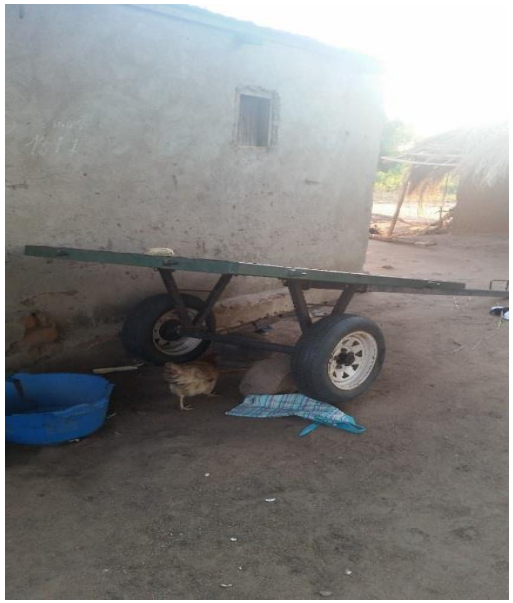


Region	Morrumbala	
Locality	Pinda - Gera	
CAEIF asset type	Silo and animal traction (including plow and cart)	
Individual or community infrastructure	Individual (male) Also community facilitator	Asset functional? Silo: Yes Cart: No Cows/plow: Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	He keeps maize in the silo and sells approximately 25 percent of what he grows, consuming the rest. Previously he kept maize in his house and it would go bad or become infested with insects. He still has some issues with insects and has to buy an additive for the maize to prevent insect infestation (a bottle costs Mt 150). The benefits from the silo are that he has a better-quality maize and is able to store maize after the harvest and get a better price after the market price increases. He would like a bigger silo, but the one he has is functioning well.	
Other Notes	This beneficiary reported that he received these three assets through working with the technician. He is the community facilitator and works with his neighbors. He received the silo in 2010 and the rest of the assets in 2011. He received the cart and used it to take his goods to the market—this proved very beneficial to him (and the neighbors he rented the cart to) because he previously was able to take a lesser quantity on the back of a bicycle. The cart no longer works because both of the tires ruptured and he cannot afford to fix them. He still has the cows and the plow and reports that they are functioning well and contributing to improvements in income.	





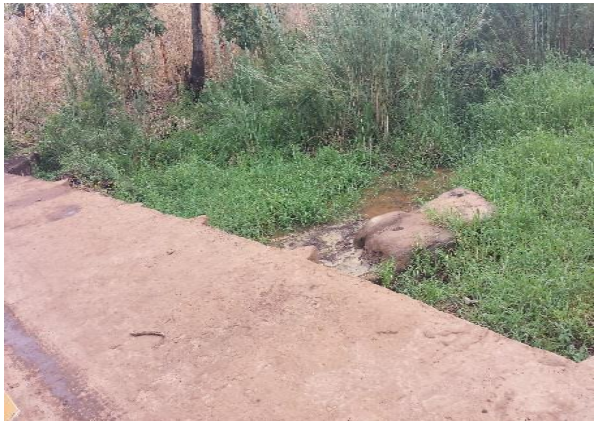
Region	Morrumbala	
Locality	Pinda - Sede	
CAEIF asset type	Animal traction (including plow, cart, and seeding mechanism)	
Individual or community infrastructure	Individual (male) Also community facilitator	Asset functional? Cart: No Cows/plow: No (cows died)
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The beneficiary was part of a group that received fishing nets and a water pump to use the river water to irrigate fields; he still benefits from these assets. In addition, from the project he received two cows, a plow, a tool for seeding the fields, and a cart. He made no contribution to the assets. He received all of the assets in 2009, and none is currently functional. One of the cows died right away, and only recently was he able to breed the remaining cow; he is waiting for the offspring to grow enough to use the plow.	
Other Notes	One wheel of the cart is broken; it is now unusable, but previously he was getting some income (Mt 50–100 /day) renting the cart out to neighbors. He served as a farmer for a demonstration plot and indicated that this is why he received the assets. He also benefited from a loan from his rural savings and lending group; he used this loan for commercial trading in fish.	



Region	Morrumbala	
Locality	Ries	
CAEIF asset type	Silo	
Individual or community infrastructure	Individual (unknown gender)	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Didn't interview owner	
Other Notes	Silo doesn't have a complete covering; outer sand layer is washing away with the rain.	

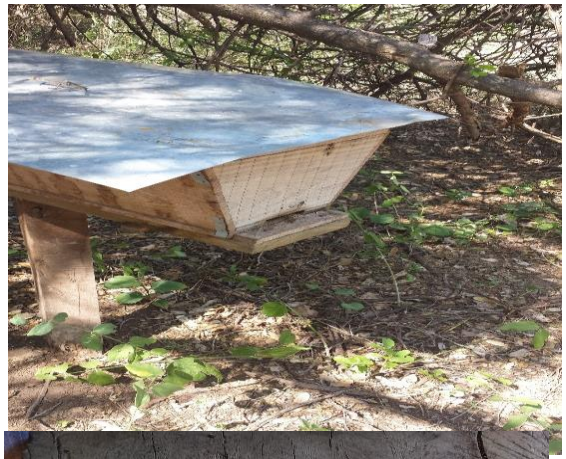
Region	Morrumbala

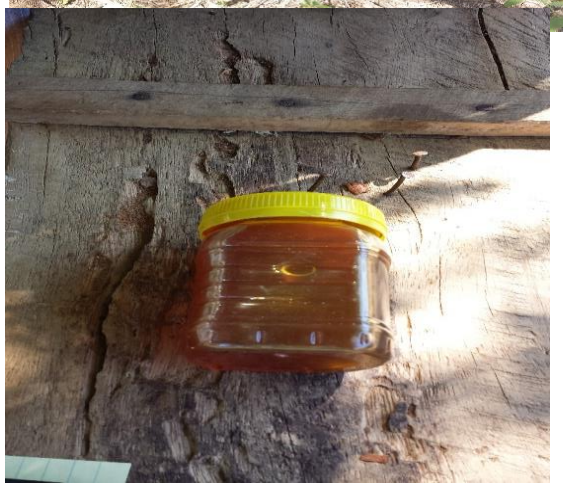
Locality	Boroma	
CAEIF asset type	Small bridge	
Individual or community infrastructure	Community infrastructure	Asset functional? Yes – but poorly maintained
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	This small bridge was rehabilitated by the project in 2012. According to the community, the bridge has improved their connectivity to marketplaces. However, the IEG team inspected the bridge and found it to be poorly constructed and maintained	
Other Notes		



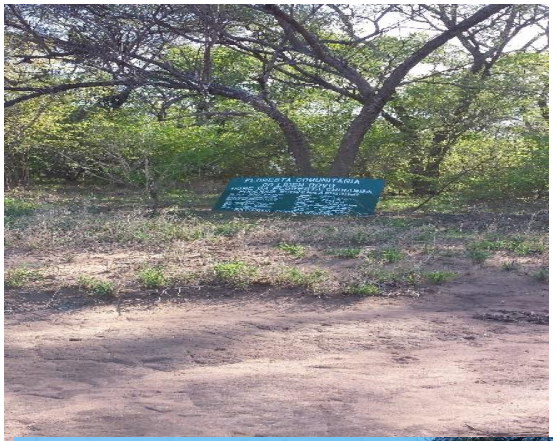
Region	Morrumbala	
Locality	Chirre	
CAEIF asset type	Threshing mill	
Individual or community infrastructure	Individual (male)	Asset functional? Partial
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	According to the beneficiary, the asset does lead to increased income. During the harvest season, up to 50–70 individuals rent his machine per day, although he is responsible for providing the diesel to run the machine. On a good day, he can expect to earn Mt 2,000 (minus diesel costs) from renting out the machine. There is immense demand for using his machine and he faces little competition from other mills. He reinvests the rental income in his farm, mostly for hiring labor and buying new seeds. He farms 2 hectares of land and has two houses. He is the village chief.	
Other Notes	The only condition for the owner to obtain the asset was that he was responsible for building a shelter for the machine. Ever since obtaining the asset in 2012, the machine has broken down three times, and the technician has to come all the way from Malawi to fix it. He has to pay approximately Mt 9,000 to repair it each time. The machine is currently broken, and the owner is waiting to receive money from his son (who runs a small shop) to fix the machine. He hopes to get it fixed by December.	

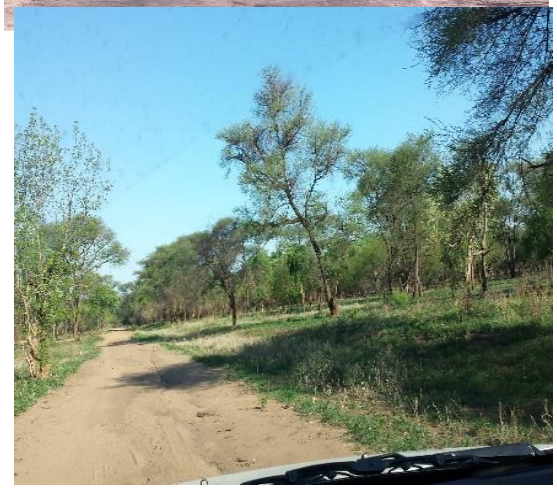
Region	Morrumbala	
Locality	Chare	
CAEIF asset type	45 boxes + kit for producing honey	
Individual or community infrastructure	Individual (male)	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The beneficiary was producing honey before the World Bank project, but was using traditional methods that were not efficient. So the assets did improve his productivity. Similar to what the Association (of which he is the president) earns, the owner sells 0.5 liters of honey for Mt 100. This honey is well processed and packaged. The beneficiary was first trained by the technicians and was then provided with the boxes, without having to submit any proposal. The beneficiary reinvests the additional income from the honey production in his farm, house, and savings and lending group. He sends the boxes to the local carpenter whenever they need repairs.	
Other Notes	The beneficiary owns 4 hectares of land and cultivates sesame, peanuts, cotton, maize, sorghum, and beans. He also does work at other people's farms. According to the beneficiary, receiving cattle would have been more beneficial to him, but all cattle were already distributed by the time the association was set up.	



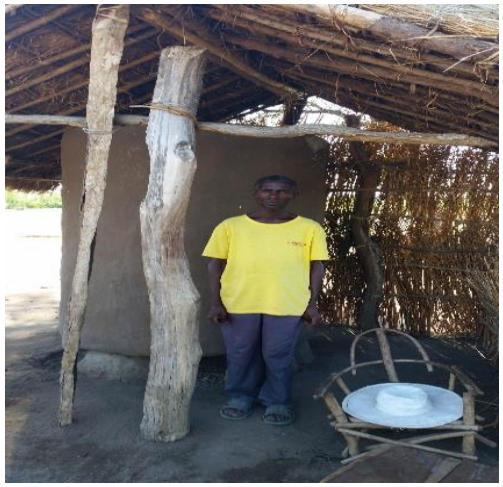


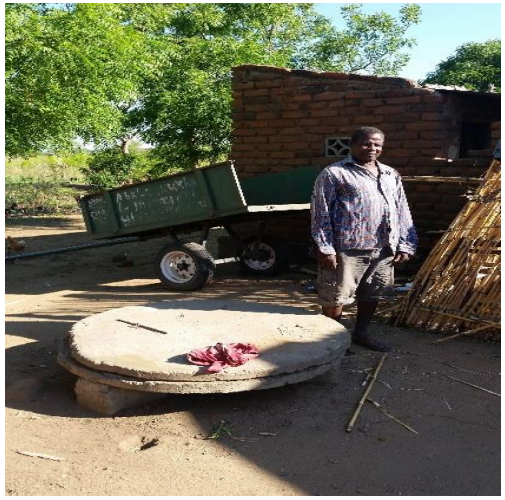
Region	**Morrumbala**	
Locality	Chare	
CAEIF asset type	Community forest	
Individual or community infrastructure	Individual and community infrastructure	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	According to the owner of the land on which the community forest is established, this forest provides a good source of firewood to the community and also a place for cattle to graze. The project only provided a few honey boxes (to be erected in the forest) and related kits to the land owner as an incentive for him to maintain the forest.	
Other Notes	According to the owner, this forest existed prior to the project, so the project itself didn't contribute to establishing the green cover.	



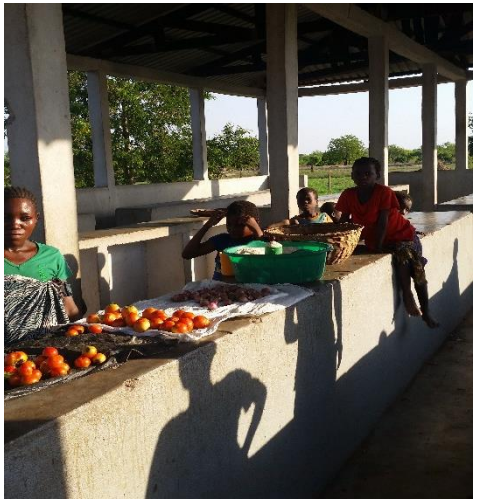


Region	Mutarara	
Locality	Villa Nova	
CAEIF asset type	Silos (4)	
Individual or community infrastructure	Individual asset	Asset functional? 2 were functional, 2 were not
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Overall, he found the silo to be the most beneficial thing for improving income because of the high returns he gets from selling his cereal crops. The president of the CBO also benefitted from a loan from the savings and lending association formed by his group. Previously he kept his grain inside of the house; he increased income from the silo and from savings and lending.	
Other Notes	IEG visited three of four silos awarded to members of a CBO in Villa Nova. The beneficiaries interviewed reported that only two of the four silos were currently working, the other two had completely eroded because they were left uncovered. The recipients of the silos included the CBO president (and community facilitator), treasurer, secretary, and a general member. The president indicated that the four people who received the silos were those that raised their hand when the community technician asked who wanted a silo. He said the other community members were afraid, but now that they see the benefit of his silo (increased income because of his ability to store cereals), they also want a silo. The top picture is the community facilitator with his functioning silo and protective shelter, the bottom is the remains of the silo that was left exposed to the rain.	



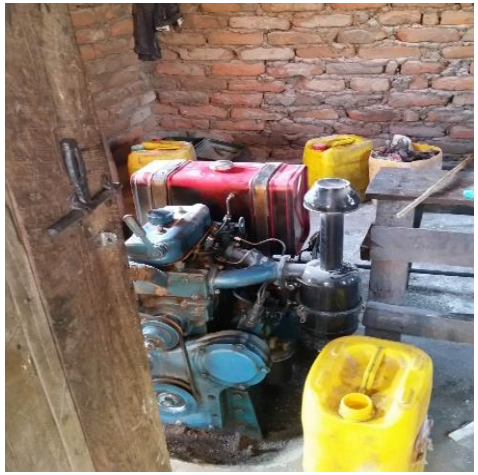


Region	Mutarara	
Locality	Villa Nova	
CAEIF asset type	Market	
Individual or community infrastructure	Individual asset	Asset functional? Building was intact, most sellers were outside
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The woman inside selling thought it was better because it was shaded; no increase in income noted.	
Other Notes	IEG visited on market day. There were many people at the market (very close to the border with Malawi), but most people were selling outside the market, with the exception of one woman. IEG learned that only vendors selling produce or fish were allowed inside the market. Most vendors at the market were selling clothing or ready-made foods, therefore they were not allowed inside.	



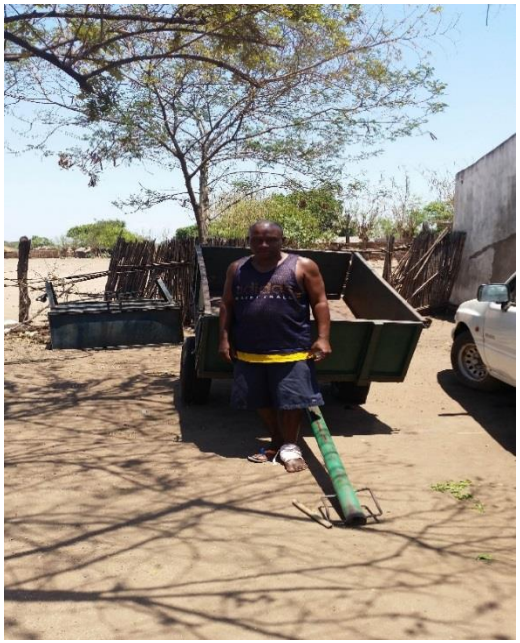
ANNEX F

Region	**Mutarara**	
Locality	Jardim	
CAEIF asset type	Grinding machine	
Individual or community infrastructure	Individual asset (male)	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The owner saw increased income both from milling his own crops and from charging neighbors to mill their crops. With the profits he has purchased cows and goats, and he also uses the money for his children. He was able to open a bank account with his profits. The mill was functioning and there were multiple people waiting in line when IEG visited the asset.	
Other Notes	This mill was originally intended to be a group asset, but when the group was asked to provide an in-kind donation of a shelter, they did not want to contribute so the individual took the mill and built the shelter. Previously the milling machine was 5 kilometers away. The owner's issue now is connectivity—it is very difficult and expensive for him to transport his milled grains.	



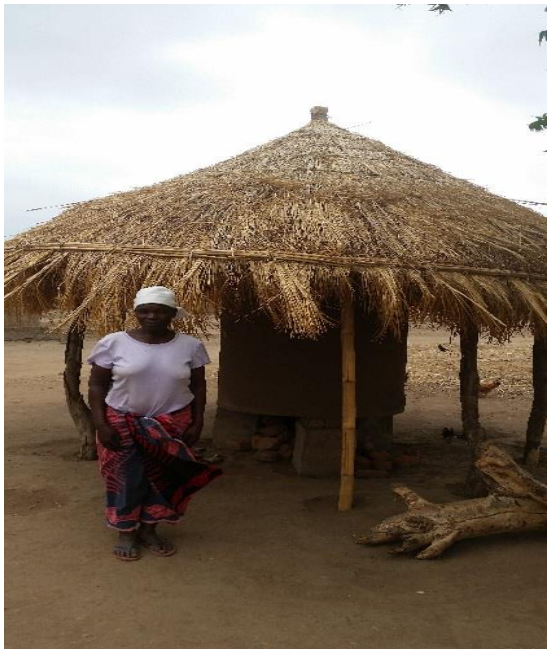
Region	**Mutarara**

Locality	Sinjal	
CAEIF asset type	Animal traction	
Individual or community infrastructure	Individual asset (male)	Asset functional? Cows: No Cart: Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The farmer received two cows, a plow, and a cart. One cow died, so he cannot use the plow. The plow still works, and sometimes he pushes it by hand. He is part of a group that also received four cows, but they no longer have those cows. It was too expensive to hire someone to mind the cows; they went to the house of a group member and were stolen by thieves. One of two carts given to the group is still functional, but they have no cows.	
Other Notes	All the animal traction equipment was reportedly free. He says he was not given an option about which asset he received.	



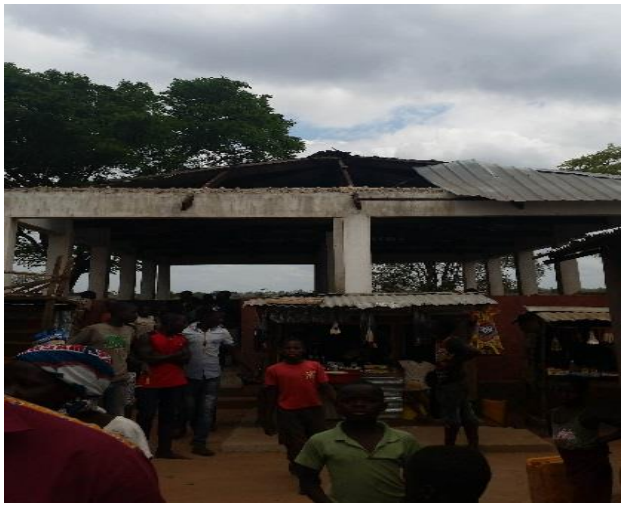
Region	Mutarara	
Locality	Chembue Mapolano Inhangoma	Didn't see asset – far away from village
CAEIF asset type	Hammer mill (water powered)	
Individual or community infrastructure	Individual asset (male)	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The farmer received a water-powered mill from the project; it lasted for four months. He had money to fix it but did not, because the mill was not of high quality, and therefore the quality of the meal it produced was poor.	
Other Notes	He says he was chosen to receive the asset because he would help others in the community.	

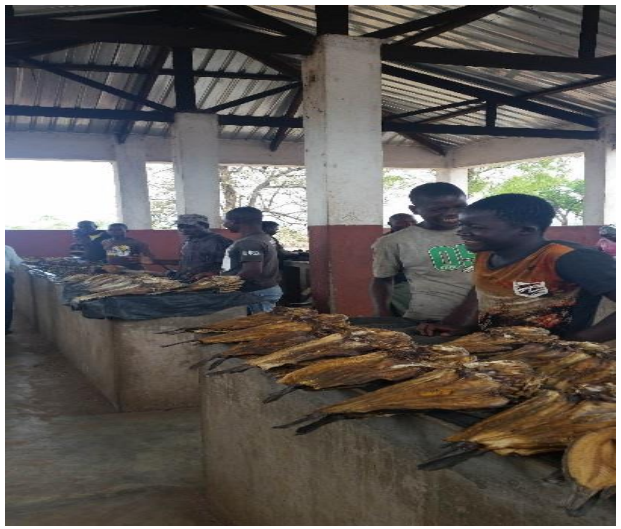
Region	Mutarara	
Locality	Chembue Mapolano Inhangoma	
CAEIF asset type	Silo and animal traction	
Individual or community infrastructure	Individual asset (female)	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Farmer received two cows, cart, plow, and seeding equipment, as well as a silo. She said that because of the assets she has enough to eat and she also makes a profit. She saves the money that she makes and was able to open up an account at a commercial bank in the local town (she is the only woman in town that has a bank account, some of the men do as well). She also invests the money back into her 3-hectare farm.	
Other Notes	She is a community facilitator, and a member of a group that participated in savings and lending. She thinks that women follow instructions (especially those of the technicians) better than men. She also said that because men typically own assets, when women are given an asset they take good care of it because if they don't, they may be beaten by their husbands.	



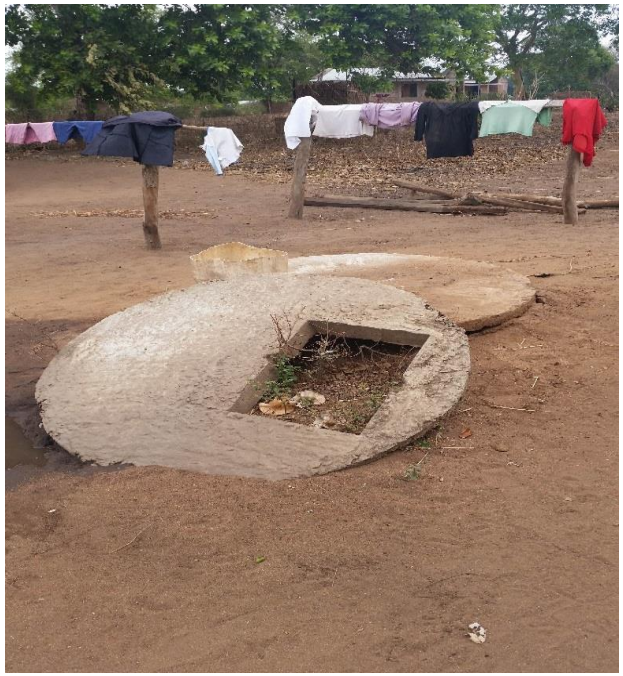
Region	Mopeia

Locality	Sambala (Zero)	
CAEIF asset type	Market	
Individual or community infrastructure	Community market	Asset functional? Yes – damaged roof
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The community market led to a decrease in income for fish sellers compared with their location before construction of the market. Previously they were located next to a bus station, and now they are in a market that is difficult to see from the main intersection/transit area. They estimated that because they are selling in the new marketplace, they make approximately Mt 100 less a day than they did when they were outside the market.	
Other Notes	Only fish are sold at the market, and it was all men except for one woman. The community leaders decided that this market would be for fish, and now this is where they must sell. The structure is relatively new—built in 2012—but the roof was partially destroyed by a storm, and has been for the past year. The government charges Mt 10/day to rent a stall, and there are approximately 40 stalls.	

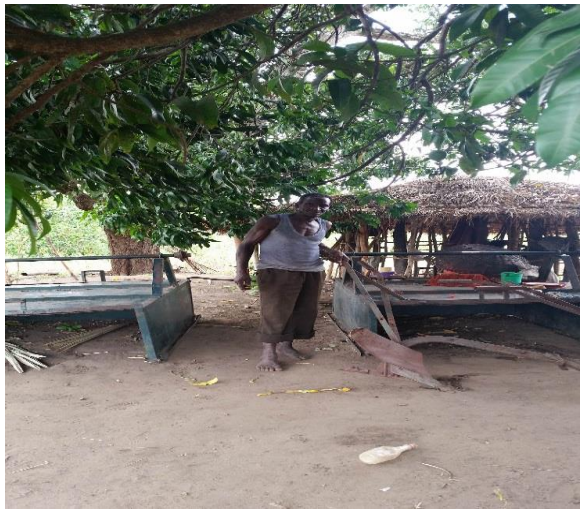


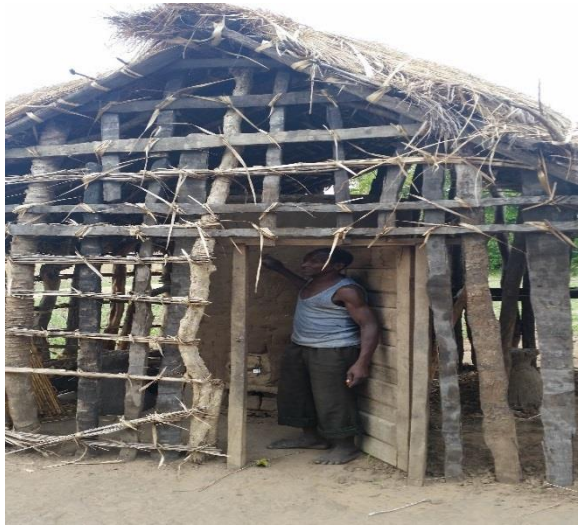


Region	Mopeia	
Locality	24 de Julio (Mopeia-Sede)	
CAEIF asset type	Silo	
Individual or community infrastructure	Individual (male)	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Helped him earn more income when it was functional.	
Other Notes	He reported that he received the silo because he is a community facilitator and one of the best producers in the community. He received the silo along with three other members of his farmers' association. He originally had a covering for the silo, but it blew away and he didn't have time to make another; therefore, the silo fell apart.	

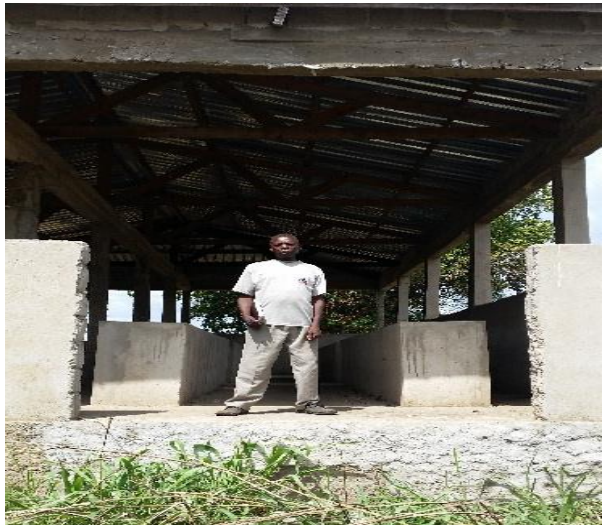


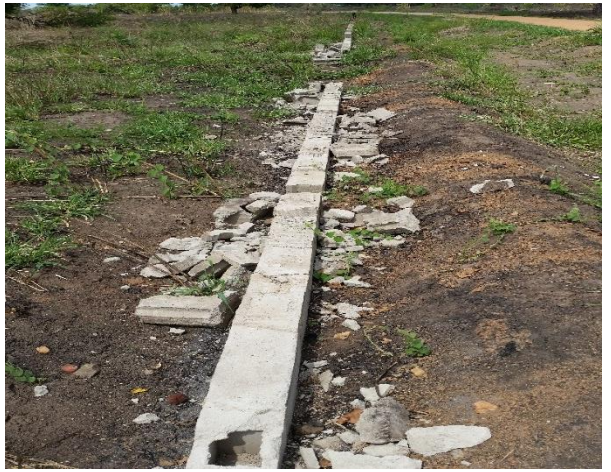
Region	Mopeia	
Locality	Conho	
CAEIF asset type	Silo and animal traction	
Individual or community infrastructure	Individual (Male)	Asset functional? Animal traction: No Silo: Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	The animal traction never helped the farmer earn more income—the beneficiary reported that the cows died shortly after they were received, only one remains, and the equipment (plow and cart) were of inferior quality and never worked properly. The silo helps him store his grain and earn more income.	
Other Notes	He reported that he received the assets because he is a community leader. From the project he received three cows, two plows, two carts, and one silo. The cows had a calf, but now, because only one cow remains (the others died), he is unable to use them for anything. Both carts and plows are broken; the beneficiary thought they were possibly secondhand and noted that they were of inferior quality. He neither requested the assets nor paid for them, but was grateful to receive them. He did contribute bricks for the silo, and constructed a shelter for the silo (excellent quality) and an enclosure for the cows.	





Region	**Mopeia**	
Locality	Rovuma (Conho)	
CAEIF asset type	Market	
Individual or community infrastructure	Community infrastructure	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	N/A – market never completed	
Other Notes	Construction began in 2013; market is unfinished and the existing construction has significant damage (six major cracks in the walls, cracks along the foundation/floor). There are no steps and the wall is unfinished, lacks bathrooms as well. The market was requested by the community and was intended for use not only for this community, but by local communities as well, and potentially as a place where local sellers could connect with wholesale buyers. Beneficiaries were told that the government is still looking for budget to finish.	

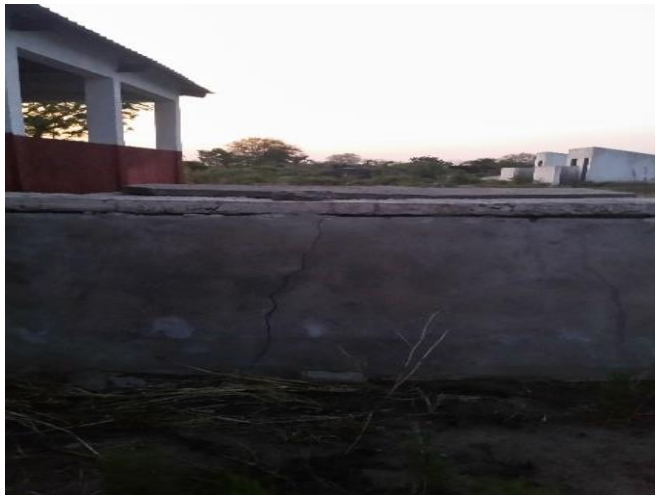




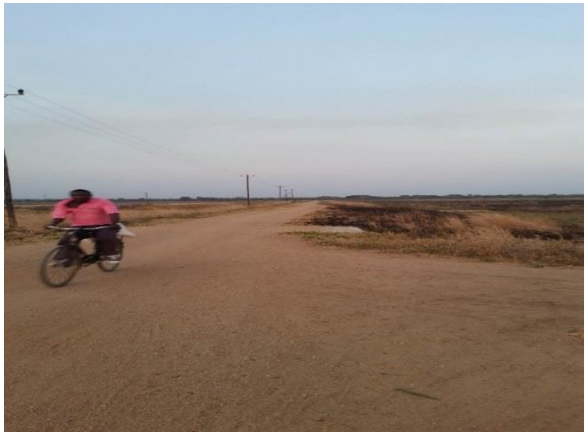
Region	**Mopeia**

ANNEX F

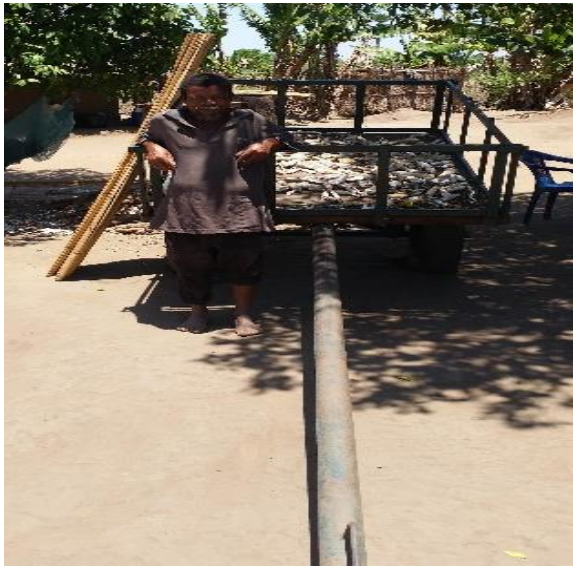
Locality	Mopeia Sede	
CAEIF asset type	Market	
Individual or community infrastructure	Community infrastructure	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?		
Other Notes		



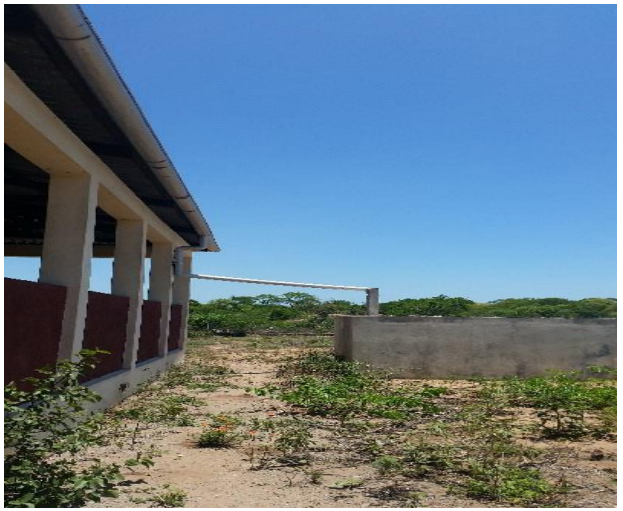
Region	Mopeia	
Locality	Mopeia - Sede	
CAEIF asset type	Bridge	
Individual or community infrastructure	Community infrastructure	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Unknown	
Other Notes	Bridges were in workable condition; no railings but currently in use. Located between large fields formerly used for rice.	



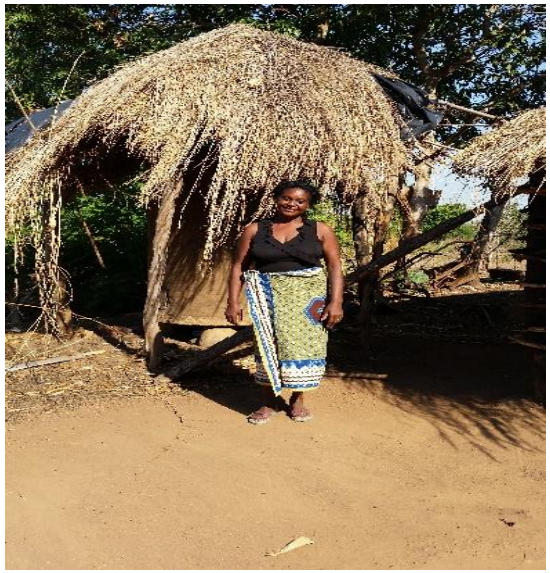
Region	Mopeia	
Locality	Campo Sede	
CAEIF asset type	Animal traction	
Individual or community infrastructure	Individual	Asset functional? No
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	N/A – Was never able to use cows for plowing (reported that they were not properly trained to plow), nor were they able to use the cart, as it broke shortly after they acquired it.	
Other Notes	Farmer received the assets because he was identified by the project coordinator (from Mopeia) after a visit as one of the highest producers in the area. He has never owned animals (or animal traction equipment) before and did not receive training. Even though he was unable to use the animals he has taken good care of them and hopes to grow the herd. If he cannot train them for plowing, he will sell them later. He reported receiving help on planting techniques, sun protection, and pesticides from technician. He does not belong to any associations.	



Region	**Mopeia**	
Locality	Campo Sede	
CAEIF asset type	Market	
Individual or community infrastructure	Community infrastructure	Asset functional? Yes, but not being used
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	N/A – not in use, hasn't been since January	
Other Notes	This market, constructed in 2013, was the best equipped market seen during the IEG field mission. There was a water pump, a rainwater catchment system, and functioning bathrooms, as well as a security booth. The market had minimal cracks/damages in foundation but was still markedly better than other markets seen in the same district. The market management committee reported that the market was not in use because there were floods that washed all the produce away so there was nothing to sell. They do not charge for stalls, and when in use, the market is used for mostly fish and produce.	



Region	Mopeia	
Locality	Lua	
CAEIF asset type	Silo	
Individual or community infrastructure	Individual	Asset functional? Yes
Does the asset increase productivity or lead to increased income for beneficiary (ies)?	Farmer has seen an increase in income from her silo, with the profits from the silo and animal traction (using cows to plow and using/renting cart) she has made enough money to send her kids to school and hired people to work her large (20-hectare) farm. Silo is well maintained.	
Other Notes	She is a community coordinator and group leader for a group that received animal traction. She reported that 12 of the group's 28 cows were stolen, but the remaining cows are alive and helping to generate profit for her majority female group. She is a widow, and has the largest farm that IEG encountered in the fieldwork; she farms 20 hectares (other farmers indicate they farm around 2–3, on average).	



Annex G. Map of the Project and IEG Assessment Areas