Terminal Evaluation Review form, GEF Evaluation Office, APR 2014

1. Project Data

Summary project data			
GEF project ID		1158	
GEF Agency project ID		P069183, P071942	
GEF Replenishment Phase		GEF - 2	
Lead GEF Agency (include all for joint projects)		World Bank	
Project name		Energy reform and Access Project In Support of the First Phase of the Energy Reform and Access Project	
Country/Countries		Mozambique	
Region		AFR	
Focal area		Climate Change	
Operational Program or Strategic Priorities/Objectives		GEF Operational Program 6: Promoting renewable energy by removing barriers and reducing implementation costs.	
Executing agencies involved		National Directorate of Energy (DNE); National Energy Fund (FUNAE); Electricity Company of Mozambique (EdM); Ministry of Education (MIRED); and, Ministry of Health (MISAU).	
NGOs/CBOs involvement		Through consultations but no definite involvement. Although the project mentions that NGOs, micro-credit institutions and cooperatives in supplying Solar PV systems has been sought, there is no mentioning of specific involvement (p.23 & 41, Project Document).	
Private sector involvement		Potential Secondary Beneficiaries. Project Document mentions that the Government of Mozambique (GoM) is committed to Private Sector Participation (PSP) in the distribution and supply of Electricidade de Moçambique (EdM), through an invitation to bid of the operation an expansion of mini-grids [p. 26, Project Document]. It is considered a potential beneficiary through the TA windows under the GEF grant and through the removal of barriers as per its Global Environmental Objective (GEO) [see p. 8, TE]. However, the document does not identify if specific private sector organizations were involved. This is probably due to the fact that GoM switched one of its objectives from letting the private sector participate in the supply of electricity towards strengthening the capacity of the new electricity public regulator, CNELEC (*Conselho Nacional de Electricidade*) [p. 52, PD and p. 15, TE].	
CEO Endorsement (FSP) /Approval date (MSP)		June 17, 2003	
Effectiveness date / project start		March 30, 2004	
Expected date of project completion (at start)		December 31, 2007 (Conclusion of First Phase)	
Actual date of project completion		December 31, 2011 (Conclusion of Second Phase)	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding		
	Co-financing		
GEF Project Grant		3.09	3.07
Co-financing	IA own	40.26	42.98
	Government	8.48	6.50
	Other multi- /bi-laterals	24.26	28.22
	Private sector	7.40	0

	NGOs/CSOs		
Total GEF funding		3.09	3.07
Total Co-financing		80.4	77.7
Total project funding (GEF grant(s) + co-financing)		83.49	80.77
Terminal evaluation/review information			
TE completion date		September 27, 2012	
TE submission date			
Author of TE		Reto Thoenen	
TER completion date		December 2014	
TER prepared by		Erika Hernandez	
TER peer review by (if GEF EO review)		Joshua Schneck	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF EO Review
Project Outcomes		S[1]	NA	MS
Sustainability of Outcomes		ML	NA	MU
M&E Design		(Modest, see p. 23, TE)	NA	MS
M&E Implementation		(Substantial, see p. 23, TE)	NA	MU
Quality of Implementation		S	NA	MS
Quality of Execution		MS[2]	NA	S
Quality of the Terminal Evaluation Report		NA	NA	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The GEOs of this project, as stated in the Project Appraisal Document (PAD), are to mitigate emissions of GHGs that contribute to climate change This would be achieved by initiating a process of removing barriers in Mozambique that are preventing the development and usage of renewable energy, including solar photovoltaic (PV) systems, micro-hydro and other renewables [p. 4, TE]. The PAD states that the impact from the completed project would be the displacement of 440,000 tons of carbon dioxide emissions within an eight-year period (covering both phases I (this project) and II – see below in section 3.2), by substitution of fossil fuel based energy generation with electricity generated from renewables. The PAD identified four primary challenges for the Mozambican energy sector. These are: (1) that the access to energy in Mozambique was low and that it was poorly reliable and efficient; (2) unfavorable environmental, livelihood and health impacts of traditional biofuels; (3) insufficient promotion and management of low cost export-oriented energy projects; and, (4) staff and institutions that are not adequate like the National Electricity Council (CNELEC) and the National Energy Fund (FUNAE) [p. 2, PD].

3.2 Development Objectives of the project:

The purpose and the development objective of this project are to increase access to energy in rural and peri-urban areas. It will comprise two broad components, mainly:

(i) Reforms that are necessary to improve the energy sector's performance and to expand energy access; and,
(ii) Investment in electricity supply infrastructure [p. 3, PD].

According to the Project Document (PD), this project is designed to meet four of the Millennium Development Goals (MDGs). These are: Goal #2 to achieve universal primary education; Goal #4 – to

[1] Project Outcomes TE calculations – takes into account two given ratings for effectiveness = (b1+b2+c)/3 = (S+MS+HS)/3 = S
[2] See "Overall Borrower Performance," C.2. Detailed Ratings of Bank and Borrower Performance (by ICR).

reduce child mortality; Goal #5 – to improve maternal health; and, Goal #7 – to ensure environmental sustainability.[3]

It is indicated that the project will be conducted in two phases; each one comprising 4 years and, thus, having a total life span of 8 years. The first phase, which is covered in this review (GEF ID 1158), was designed to create the context for commercial energy access to rural and peri-urban communities, as well as for businesses. Specifically, this meant building upon the Government's and private sector's commercial capacities, as well as already established regulatory and institutional frameworks. The second phase was designed to deal with scaling-up investment activities from the first phase, and to expand the energy service. Phase 1 possesses four different components:

(A) **Component A – Power Sector reforms**: *Electricidade de Moçambique* (EdM) will be advised on how to create a public-private partnership, and on how to create an independent public-owned transmission company. A consultant will help the Government in its implementation [p. 10, TE].

(B) **Component B – Grid Electrification**: to demonstrate that grid electrification can be cheaper by being close to the national grid. It is sought to reach 40,000 new consumers in 265 sites. It seeks to:

a. Lower the consumers' cost per connection that is currently the highest in the region (US $2,000). It is believed that the cost reduction potential would be of at least 20%; and,
b. This will be done through employing more effective financing and marketing strategies through usage of household meters and connection fees.

(C) **Component C – Independent Grid Investments**. The project considers that it is possible to allure private businesses to accept commercial risks. The Government (GoM) will offer these incentives:

(i) Concessions to private sponsors for greenfield sites;
(ii) EdM will sell bulk to independent distributors;
(iii) GoM will provide transparent capital subsidies by the Government; and,
(iv) The establishment of a mediation and regulatory entity, the CNELEC (*Conselho Nacional de Electricidade*).

(D) **Component D – Renewable Energy Promotion and Cross-sectoral Linkages:** This component seeks to:

a. Work with ministries to provide electricity – mainly solar PV systems – to public service centers like clinics, schools, and agricultural centers. The first phase focuses on the Ministry of Education (MINED) and the Ministry of Health (MISAU);
b. Cooperate with independent grid concessionaries in order to provide electricity to people willing to lease-purchase a solar PV system;
c. Work with dealers to provide electricity to remote households that can pay in cash or credit; and,

[3] (A) To contribute to the **reduction of child mortality (Goal #4)** and **maternal health improvement (Goal #5)**, through provisioning electricity in at least 150 rural health facilities; (B) to contribute to **achieving universal primary education (Goal #2)** through the provision of electricity in at least 150 rural schools that would allow having classes during the evening; and (C) to work towards **ensuring environmental sustainability (Goal #7)** through displacing 440,000 tons of carbon dioxide.

d. Collaborate with the EdM and DNE to ensure that renewable energy can be supplied through a standardized small power purchase agreement.

(E) **Component E – Institutional Strengthening and Capacity Building:** The component attempts to strengthen institutional capacity of organizations under the Ministry of Mineral Resources and Energy (MIREME) by ameliorating its governance. It will do so by streamlining its responsibilities and mechanisms in working relationships. It also wishes to transform CNELEC into an independent regulator during the first phase, with the help of other donors such as USAID. Furthermore, the project will support the establishment of the environmental unit within the DNE and assist the already established EdM; and, will provide training to members and other staff [p. 13, TE].

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

Yes, there were changes in the development objectives, particularly due to implementation issues. The original development objectives of this project, as stated in the Project Document (PD), were to:

a) Accelerate electricity use to promote economic growth and social services, in order to improve life quality of un-served and under-served areas (peri-urban and rural) in a commercially viable way; and,
b) To strengthen Mozambican capacity to boost energy access.

There were two restructuring phases of the World Bank's credit, which sought to improve the project's relevance in response to a slow implementation progress [p. 6, TE]. The first restructuring took place on July 17, 2007 and the second restructuring on December 30, 2009. The slow implementation is attributed to financing constraints by the WB and GEF. The delay is also ascribed to GoM's policy change, which consisted of switching from privatization of the electrical supply to strengthening of the new national electricity regulator (*Conselho Nacional de Electricidade* or CNELEC) [p. 15, TE]. While there were two restructurings for the WB credit, the first restructuring changed the development objective to the following:

- "Accelerating access to electricity in underserved areas in sustainable and commercially viable manner" [Section F. Results Framework Analysis, TE].

This new wording dropped the objective of using electricity to enhance economic growth and social services as well as to strengthen Mozambican capacity to energy access. This change would more clearly reflect that the development objective no longer involved investment by the private sector.

The TE indicates that the project development objectives (PDOs) were inconsistent throughout different documents.

In addition, the Global Environment Objectives (GEOs) were also modified during the restructuring phase. The original GEOs as per the Project Appraisal Document were:

- "To initiate the process of eliminating the barriers that impede the development and use of renewable energy, in particular solar photovoltaic (PV) systems, and develop micro-hydro and other renewables' capacity."

In the restructuring phase the GEO was changed to match the revised development objective. That is, both objectives adopted the same language:

- "Accelerating access to electricity in underserved areas in a sustainable and commercially viable manner" [p. 7, TE].

The TE mentions that there were three restructurings of the GEF grant. The first one took place in July 17, 2007; the second in December 30, 2009; and, the third one in March 30, 2011. The two first restructurings were part of the WB's restructuring credit, while the third one consisted on the GEF grant. In this sense, the GEO objective only changed during the first restructuring. 4. GEF EO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

The project is relevant to both the GEF and to the Government of Mozambique. For the Government of Mozambique, relevance is seen in increasing access to renewable energy in peri-urban and rural areas, by lowering consumption costs. This will not only ameliorate communities' quality of living but can also incentivize income generation through business activities that use energy. It can also contribute to ensure environmental sustainability. For the GEF, the project's objectives are consistent with GEF Operational Program 6*: Promoting renewable energy by removing barriers and reducing implementation costs*. Accordingly, this project would help to "initiate the process of eliminating the barriers that impede the development and use of renewable energy, in particular solar photovoltaic (PV) systems, and develop micro-hydro and other renewables' capacity." This will contribute to a reduction in Greenhouse Gas emissions (GHG) as energy produced from renewables from this project's investments will displace electricity that would have been generated from fossil fuels [p. 3, PD].

4.2 **Effectiveness**	Rating: **Moderately Satisfactory**

This TER finds overall project effectiveness to be *moderately satisfactory*. The Terminal Evaluation rated the project's outcomes as *satisfactory* and GEO outcomes as *moderately satisfactory*. Although a principle objective – the goal of involving the private sector in participating in the distribution and supply of the *Electricidade de Moçambique* (EdM) was not accomplished, the modified outcomes were generally attained. The TE reasons that although the private sector was not involved in the distribution and supply of

energy, that it is becoming involved in other projects such as power plants but does not give further detail [p. 17, TE].

Some outcomes surpassed their expected target, such as having created 3,270 more electrical connections, and there were other benefits such as the decrease in new connections' cost. However, the Project Document states that "core at the implementation of the program are the community leaders, private developers, local entrepreneurs" and other organizations. Despite the private sector's importance, bringing them on board is absent, as shown at the end of the project's outcomes. The PD states that "grid-based rural electrification executed by state-owned power utilizes (…) rarely delivers any significant development impact." The PD states that while this enables the extension of the grid, it fails to connect large numbers of households and enterprises. Because of this, the PD underlines that the best to solution is to shift to commercially-oriented rural electrification [p. 21, PD].

Additionally, the TE attributes project delays to a lag in the start of electrification but the reason for this is not given. [See p. 22, TE.]. The TE should include the reasoning behind this given that it is an important outcome measure for components B and C.

Progress towards achievements of project objectives is detailed further below along each of the project components:

(A) Component A – Power Sector Reform. This component initially aimed to separate *Electricidade de Moçambique* (EdM) into several business units, to incentivize the private sector to participate in the EdM; and, to establish an Independent Transmission Company (ITC). However, these three project outputs were cancelled during the first restructuring. A new study revealed that for countries with relatively small electricity systems that do not operate on a fully commercial basis, unbundling and privatization are not as relevant [p. 8, TE]. A new output was added, that was originally addressed in Component E. After the restructurings, the desired output was to "operationalize a strong and independent advisory regulator," which referred to the strengthening of the new National Energy Council (CNELEC) in charge of regulating electrical supply and monitoring the EdM. The TE states that the output for this component was establishing the National Energy Council. In this regard, consultations were carried out on the technical and commercial capability of EdM in three different cities, for which reports were provided to the Ministry of Energy although they are not public [See Annex, TE]. (Ok, a la mitad)

(B) Component B – Grid Electrification. Three out of the four outputs under this component were fully accomplished or outperformed original project outputs. The four outputs that were accomplished were: (1) technical advisory to develop lower cost electrification; (2) technical advisory for the design, bid preparation, construction and management of electrification plans; (3) acquisition of vehicles, tools and specialized equipment; and (4) building of 9 office facilities to dispatch customer needs. The fifth output was mostly outperformed: the target of 1,100 LV lines was met and outpaced by the construction of 896 km; the objective of setting 240 transformers was accomplished and exceeded by 134 transformers; while the construction goal of 500 km of MV lines was only partially met with a final output of 373.7 km of MV lines. Lastly, although 40,000 new connections were expected to be completed at the first phase, during the first restructuring, the expected output scaled up to 65,000. The end output was met and outpaced by 3,270 new connections. (75%)

(C) Component C – Independent Grid Rural Electrification. Expected risks regarding the lack of interest by the private sector and financial institutions became a reality and, thus, the goal of involving the private sector was dropped. First, the initial desire to grant private sector concessions in Northern Inhambane and Mocimboa da Praia was dropped. Nevertheless, the government granted one Independent Power Producer (IPP) license and was planning to grant more licenses of this kind and one Independent Transmission Company (ITC). (0)

(D) Component D – Renewable Energy Promotion and Cross-sectoral Linkages. This component was originally to be financed by US $3.09 million of the GEF grant (objective was maintained after second restructuring). Two expected outcomes were canceled due to a low response from businesses. The two components that were cancelled were: (1) investments in renewable energy activities; and (2) technical assistance program for creating a sustainable market. Installation of 150 PV systems for schools and 150 for clinics was originally stipulated. During the second restructuring, 100 additional clinics were added. At project closure, PV systems had been installed at 311 hundred schools and clinics out of a target of 400. (75%)

(E) Component E – Institutional Development & Capacity Building. The expected output regarding the operationalization of the CNELEC was canceled and moved to component A. An original objective was to support and provide capacity building for the Ministry of Energy (ME). The first restructuring included more concrete sub-objectives. In the end, ME staff was trained, an information strategy was implemented, an environmental unit was established, technical, legal and financial support was granted for large energy projects, and support was given in other areas. (100%)

4.3 **Efficiency**	Rating: **Moderately Unsatisfactory**

While the TE indicates that the project was highly cost-effective, this TER rates project efficiency as *moderately unsatisfactory*. This project experienced major delays (more than three years). While the TE points out that the project was able to surpass the economic benefits that had been initially estimated [p. 22, TE; also see Annex 2, TE], these benefits are largely unattributable to the project. First, efficiency is attributed to higher oil prices which increased consumer benefits from switching from kerosene/gen-sets to electricity. Second, efficiency was affected by a large implementation delay of 39-months, taking place right after the effectiveness date and until the mid-term review [p. 14, TE]. This delay was primarily attributed to Government of Mozambique's (GoM's) policy change and project restructuring. GoM's policy change consisted in switching from privatization of the electrical supply to strengthening the new national electricity regulator (*Conselho Nacional de Electricidade* or CNELEC). Financing delays were also ascribed to delays in procurement by the World Bank. Third, the TE mentions that such lags were also due to factors outside the government's and implementing agency's control, such as complexities of project design and co-financing [p. 15, TE]. Finally, the project experienced delays after the mid-term review due to other issues including the abolishment of external Project Implementation Units (PIUs) by the Government of Mozambique [p. 15, TE].

4.4 **Sustainability**	Rating: **Moderately Unlikely**

While the TE assess a sustainability rating of *Moderately Likely* (or moderate, as per their scale), the rating given by this TER for sustainability is *Moderately Unlikely* on the GEF's 4-point rating scale for risks to sustainability of project outcomes. The principle reasons are risks to financial and institutional sustainability of project outcomes.

Risks to sustainability of project outcomes are detailed further along the following dimensions:

- **Financial sustainability – Moderately Unlikely**. Nearly 91% of the financial resources were provided by organizations external to the government, whick in turn provided around 8% of project funding. Annex 2 of the TE estimates that the financial return from the project for EdM is nearly zero, and suggests that this amount of financial return is not enough for the project to be sustainable [p. 36-37, TE]. Because the government's financial capacity appears to be limited in case further financial replenishments are needed, this TER rates financial sustainability as *moderately unlikely*. For example, it is possible that completing the installation of the missing 89 PV system connections or ensuring that CNELEC advices GoM would require additional funds [see Annex 2, TE].

- **Sociopolitical sustainability – Unable to Assess**. The TE identifies only one social factor that could challenge the sustainability of the project, to a certain extent. Several consultations with Non-Government Organizations (NGOs) and representatives of Civil Society Organizations (CSOs) were held but there appeared to be no consensus regarding the adoption of national tariffs [p. 14, TE]. This could threaten the legitimacy of the public electrical supplier*, Electricidade de Moçambique* (EdM), if no consensus is reached. Other sociopolitical factors are not mentioned in the TE nor in the PD. However, this Terminal Evaluation Review considers that the lack of additional funds could jeopardize the future provisioning of education and health services. It is possible that, in order to guarantee delivery of such services, additional funds could be needed in order to continue ensuring electrical connection to more than 65,000 consumers. This could be a possible scenario in case of an environmental catastrophe such as the floods that took place in 2000 and 2007 (source: preventionweb.net.) Further information about the socio-political risks would be needed. As the sustainability of the system of governance ruling these new electrical systems is somewhat questionable, it can be said that its system of governance could develop important shortcomings in the future.

- **Institutional framework and governance – Moderately Unlikely**. Although TE mentions that the project is "well-anchored in the Mozambican context," it does not provide evidence of this. The TE does not address the possible risks to the institutional sustainability of the project. According to the PD, the Government of Mozambique has taken several legal steps to ensure the participation of the private sector in energy supply by the EdM, through the adoption of the 1997 Electricity Law. Nevertheless, as per the TE, its implementation remains unaccomplished. The legal and governance framework are in place but the institutional actors to accomplish this phase like the private sector are missing.
- **Environmental sustainability** – **Unable to Assess.** There is no mentioning of environmental sustainability.

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

Although the TE does not consider whether co-financing played a fundamental role, this TER considers that co-financing was essential to the achievement of GEF objectives. Importantly enough, it made the project possible while considering the limited amount of available funding by the Government of Mozambique. A total of US $77.7 million were co-financed by partners such as the World Bank (WB), the African Development Bank (AfDB), among others. That is to say that the project was co-financed by 96.2%, while the GEF grant only covered 3.8% of the total disbursements (US $3.07). For the aforementioned reasons, co-financing was certainly crucial. The GEF grant was specifically used for ***Component D – Renewable Energy Promotion and Cross-sectoral Linkages*** (objective was maintained after second restructuring). There was indeed a difference in the expected and actual co-financing. Moreover, the actual financing was lower than the original financing, which constituted a decrease of US $2.7 million (co-financing was originally $80.40 and decreased to $77.7). The TE suggests that this level of financing underwent changes due to the very low interest by the private sector and that there was political resistance to differentiated tariffs [p. 13, TE].

The TE indicates that the different kinds of financial sources (the GEF, WB, AfDB, among others) affected the project implementation. For instance, it points out that coordinating supervision missions and shared activities (like donors' "relying on one project auditor") caused important delays in the components' outcomes. More importantly, the fact that the majority of the financial sources (91.95% of total funds) were external and were not awarded by the government, makes the project's continuance contingent upon the continuance of external funds.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

As part of the second WB credit restructuring, the electrification procurement for 100 additional clinics underwent some delay. The TE attributed this to increased attention paid to quality issues. The Terminal Evaluation mentions that there was a substantial "slowdown in the implementation of project activities," which unfortunately led to a 39-month delay in the project's completion, which took place right after the effectiveness date and until the mid-term review [p. 14, TE]. First, this delay is attributed to financing constraints by the World Bank and the GEF. Second, the delay is also attributed by GoM's policy change and project restructuring. GoM's policy change consisted in switching from privatization of the electrical supply to strengthening of the new national electricity regulator (*Conselho Nacional de Electricidade* or CNELEC), in view of the private sector's lack of interest in investing in renewable energy. Delays after the mid-term reviews are thought to be due to implementation issues, including the abolishment of external Project Implementation Units (PIUs) by the Government of Mozambique [p. 15, TE]. However, the TE does not mention whether mid-term reviews are restructuring phases, which complicates somewhat the analysis. The present TER found that project implementation delays led to changes in the project design (or

restructuring), therefore, affecting one of the project's most important outcomes. That is, the project no longer sought to include the private sector to participate in the supply of renewable energy[4].

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

This TER found that country ownership affected the overall sustainability and outcomes of the project. According to the TE, the Government of Mozambique showed "commitment and ownership to the development objective and the project" [p. 25, TE]. Despite the fact that the document indicates that there were implementation delays caused by the Government's policy change, it does not recognize that these changes affected project outcomes [p. 14, TE]. Although the TE does not give details about the effect of country ownership on the project's outcomes and sustainability, this TER estimated such effect. To start, the country was directly involved in achieving the Intermediate Outcome Indicators, for whose country ownership appears to have played an unsatisfactory role. In two subsets of these indicators, the CNELEC –the electrical public regulator– provided advice and recommendations on Electricity Company of Mozambique's (EdM) performance. However, given that the advice was not made public, this could have not taken place [see *F. Results Framework Analysis*]. In addition, the involvement of the Government and co-financers is not clear in the components' description by the TE. This document mentions that the "main cause of delays was the change in GoM's energy sector policy" and that this slowed its implementation [p. 22, TE]. Nevertheless, earlier in the document, the TE enunciates that such change was a "policy consensus" [p. 10, TE], and avoids mentioning whether such policy consensus was within the Government of Mozambique or with the GEF and other co-financing entities. Although the TE's wording makes it hard to identify whether the Government's involvement directly affected outcomes and sustainability, it is possible to make an assessment of the GoM's role regarding other aspects. First, the GoM partly delivered the promised money – it only deliver $6.5 out of the $8.48 million. The significant slowdown given policy change –a 39-month delay– is an indication that country ownership had a negative effect on the project's outcomes. In summary, country ownership appears to have negatively affected all the abovementioned outcomes.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Moderately Satisfactory**

Assessment of project indicators provided in the PD using the GEF IEO SMART acronym (Specific, Measurable, Achievable, Realistic and Timely) as a guide is as follows: To start, this TER found that

[4] The TE justifies that although the private sector was not involved in the distribution and supply of energy, that it is becoming involved in other projects such as power plants [p. 17, TE.]

objectives were *Specific* and *Measurable*. However, they were only partially *Achievable* and *Realistic*: integration of the private sector into the project was not possible as the government incentives were not enough to attract private investment. Moreover, the indicators are not time-bounded nor do they identify key stakeholders. Baseline values were adequately established, according to the TE [Section F. Results Framework Analysis]. Mid-term reviews are also established in the Project Document (PD) [p. 45]. The TE mentions that the project did not develop an impact evaluation although the design had included it in its Project Document (PD) [p.15, TE]. It also mentions that the two restructuring phases could have improved the indicators "more aggressively," which could have enabled their linkage with the project's objectives [p. 15, TE]. Organizational budgets are established for each component as well as for M&E under the "Cost by components" table [p. 133, PD]. Organizational set-ups for procurement and capacity assessment are well established in the Project Document but are not set regarding the evaluation implementation [p. 84, PD]. Thus, the M&E design is considered to be *Moderately Satisfactory.*

6.2 **M&E Implementation**	Rating: **Moderately Unsatisfactory**

For this section, the TER grants the rating of *Moderately Unsatisfactory* and its reasoning is as follows. First, the Terminal Evaluation states that M&E implementation by the National Directorate of Energy was not systematic and, thus, monitoring was not carried out efficiently. To start, the PD indicates that Project Coordination Units (PCUs) were expected to hand in quarterly progress reports "as the main instrument of monitoring progress" [p. 58, PD]. After the first mid-term reviews, the TE expresses that PCUs (also called PIUs) were abolished by the Government of Mozambique but does not explain the reasoning behind [p. 15, TE]. More importantly, the TE indicates that monitoring was weak given the lack of a systematic monitoring framework within the Ministry of Energy, *Electricidade de Moçambique* (EdM) and National Energy Fund (FUNAE) [p. 16, TE] although PIRs from 2005-2012 were submitted. Moreover, the TE points that the decentralization of activities enabled monitoring implementation because provincial delegations possessed updated information. Accordingly, this was carried out by FUNAE, ME and EdM [p. 16, TE].. Regarding the relationship between indicators and objectives, TE states that the baseline was modified so that indicators were able to measure attainment of objectives as the indicators changed with the second and third restructuring,.

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Moderately Satisfactory**

The present TER found that the quality of project implementation by the World Bank was *moderately satisfactory*, in line with the TE's rating. This is because the procurement process had some delays attributable to the WB's lack of knowledge of the procurement process [p. 25, TE] but the supervision and training that the WB gave were satisfying, as per a questionnaire performed to training recipients. Regarding the design of M&E, it had a poor layout given that the design was not redefined as the Project Document said it would [p. 58, TE]. Overall, there was a good project oversight given that capacity building trainings were successful, as per the questionnaires carried out by the Terminal Evaluation to the government agencies CNELEC, *Electricidade de Moçambique* (EdM), FUNAE and ME. The trainings were provided in the following subjects: audit and internal audit, database management, environmental management, financial management, monitoring and evaluation, project management and rural electrification [p. 31, TE]. 83.6% of the respondents of the *Questionnaire on Capacity Development* (Annex 12) highly valued the trainings provided by the WB and mentioned that these trainings should continue to be provided. For these reasons, the rating for project implementation is *moderately satisfactory*.

7.2 **Quality of Project Execution**	Rating: **Satisfactory**

The quality of the project execution was *satisfactory.* At the first part of the project, its execution suffered substantial delays by the National Directorate of Energy (DNE, also called Ministry of Energy in the TE). As previously mentioned, there was a 39-month delay in the completion of the project. Project Development Objectives (PDO) and Global Environmental Objectives (GEO) ratings were unsatisfactory, as of May 2006. However, the first restructuring led to an improvement of project execution and of its disbursements, which helped in making PDOs and GEOs obtain satisfactory ratings in May of 2008 as per the TE. In general, the project had a good evaluation plan but monitoring of activities was nonexistent since the National Directorate of Energy (DNE), who was in charge of its execution, did not engage in systematic monitoring [p. 16, TE].

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

No changes in environmental stress or status are noted in the TE to have occurred by the end of the project.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

This TER found that evidence regarding socioeconomic improvement was scant. The TE points out that electricity improved water provisioning, the functioning of businesses like shops and restaurants, as well as the conservation of food in fridges and freezers [p. 24, TE]. Although the TE indicates that the project had a positive impact on poverty and social development, no quantitative evidence is provided. The TE identified the following impacts during its visit: reduction of living cost due to less fuel dependency; reduced burden of wood and fetch water collection by women; and, increased income generating opportunities. Again, no quantitative assessment is provided.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities – According to the TE [p.53], the capacity development training achieved the following:

- Better communication with energy stakeholders;
- Increased performance of staff and the organization;
- Improved knowledge and understanding of regulation;
- Improved quality and environmental management systems;
- Better staff skills;
- Greater probability of achieving organizational objectives; and,
- Shortened response time for feedback from project colleagues.

Despite having addressed these qualitative findings, no quantitative figures were given nor is specific qualitative evidence is given.

b) Governance

Prior to the start of the project, the Project Appraisal Document (PAD) identified that institutions including the National Electricity Council (CNE) and the National Energy Fund (FUNAE) were in a developing stage and had low levels of capacity [p. 2, TE]. According to the TE, the following public institutions benefitted from capacity development activities of this project: the National Electricity Council (CNELEC),

Electricidade de Moçambique (EdM), National Energy Fund (FUNAE) and the Ministry of Energy (ME). The Ministry of Energy was established and is currently functioning. The TE was unable to determine whether the CNELEC has been functioning as a strong and independent regulator, which remains a challenge. There is not data whether it has provided public advice to the Government of Mozambique. In addition, the sustained procurement activities of FUNAE enabled the existence of a local market in the supply and installation of larger Photovoltaic Systems (PV) systems as per the TE [p. 18]. Nevertheless, the sustainability of this local market remains a challenge given the high cost of PV relative to other energy systems. In a questionnaire that was performed, the trained workers at CNELEC, EdM, FUNAE and the Energy Ministry (respondents), indicated that 84% of the activities corresponded to capacity development needs; whereas all of the respondents mentioned that they used 100% of the knowledge gained in their daily work [see Annex 12, TE]. As the sustainability of the system of governance ruling these new electrical systems is somewhat questionable, it can be said that its system of governance could develop important shortcomings in the future.

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

No unintended impacts are described in the TE as having occurred as a result of the project.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

As per the TE, no GEF initiatives at scale have been adopted. The TE indicates that GEF support was designed to contribute in: (1) removing information and awareness barriers about PV systems in Mozambique; (2) creating a private market and in reducing the costs of renewable energy; and, (3) preparing a strategy for long-term development of renewable energy [p. 3, TE]. First, although removing some information and awareness barriers could have led to an easy adoption of PV systems, the TE points out that small solar systems and similar renewables face important difficulties. Second, because the objective of fostering a private market was removed during the first restructuring, no gains in creating a private market are foreseen. One reason why a broader adoption has not taken place may be related to specific outcomes that the project is focusing on, without having scheduled other follow up activities.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The following are the lessons that the Terminal Evaluation identified:

- The first lesson learned in this project was that financial incentives were not enough to attract investment by the international and local private sector in renewable energy. The TE attributes such behavior to the risk perception in relation to the rural context, which has been observed in other countries such as in Cameroon. Thus, assumptions that financial incentives will in and by themselves function in the stimulation of a private market should be avoided. Many other risk factors should be taken into account in this logic;
- Another lesson learned is that indicators that take into account risk-taking approaches would better reflect reality and progress on projects like this;
- A third lessons is that multi-finance by several implementing agencies adds complexity and can, therefore, negatively impact a project's implementation. This should include possible drawbacks related to the coordination of multiple co-finance schemes so as to better inform decision-making [p. 26-27, TE].

9.2 Briefly describe the recommendations given in the terminal evaluation.

One recommendation by the TE is that it suggests that the project design be more careful in taking into account the risks that the project had identified in previous stages. The TE considers that, despite having identified that getting the private sector to participate could be a fortuitous circumstance, the project design adopted it as a target [p. 14, TE].

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF EO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	*The project does assess relevant outcomes but does not include environmental impacts. The project mentions socioeconomic impact such as greater income generation through new businesses. However, evidence for this is not provided.*	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	*The report is somewhat inconsistent. It does not clarify how the phases correspond to objectives, outcomes and indicators. Making it hard for the reader to assess whether outcomes were reached within the timeframe. Not all evidence is substantiated, such as the reasons for policy*	**S**

	change by the Government of Mozambique leading to credit restructuring.	
To what extent does the report properly assess project sustainability and/or project exit strategy?	*Sustainability is not thoroughly assessed. This TER found that there are substantial risks in the financial aspect, and moderate risks regarding the institutional framework. Nevertheless, it was unable to assess sociopolitical or environmental threats.*	**MU**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	*The lessons learned, particularly related to the participation of businesses in the electrical supply, were substantiated. The TER believes that the evaluators could have gone further as to assess whether the government did indeed provide subsidies to businesses and whether an increased amount of subsidies or if other incentives could have helped.*	**S**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	*Yes, the project did include actual costs and co-financing. However, an additional breakdown regarding on the costs conducting the terminal evaluation would have rendered greater transparency.*	**MS**
Assess the quality of the report's evaluation of project M&E systems:	*The TE mentioned only once that the M&E design was not complete and did not indicate whether the design was revised, as per the Project Document. It also mentions that monitoring was carried out by provincial entities but no information on this is provided.*	**MU**
Overall TE Rating		**S**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

Project Document (PD), the Project Implementation Review (PIR) and Terminal Evaluation (TE) were used.