GEF EO Terminal Evaluation Review Form

1. PROJECT DATA				
			Review date:	01-17-2009
GEF Project ID:	314		at endorsement (Million US$)	at completion (Million US$)
IA/EA Project ID:	605	**GEF financing:**	4.45	3.98
Project Name:	A Program for Rural Electrification with Renewable Energy Using the Popular Participation Law	IA/EA own:	0.1	0.1
Country:	Bolivia	Government:	2.64	1.62
		Other*:	1.32	1.57
		Total Cofinancing	4.06	3.29
Operational Program:	CC 6	**Total Project Cost:**	8.51	7.27
IA	UNDP	Dates		
Partners involved:	Ministry of Economic Development, Vice-Ministry of Electricity and Alternative Energy (VMEEA)	Effectiveness/ Project appraisal document Signature (i.e. date project began)		08/03/1999
		Closing Date	Proposed: 12/31/2003	Actual: 03/31/2008
Prepared by: Ines Angulo	Reviewed by: Neeraj Negi	Duration between effectiveness date and original closing (in months): 52 months	Duration between effectiveness date and actual closing (in months): 103 months	Difference between original and actual closing (in months): 51 months
Author of TE: Remi Rijs EOLOGICA		TE completion date: August 2008	TE submission date to GEF EO: September 2009	Difference between TE completion and submission date (in months): 13 months

* Other is referred to contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries.

2. SUMMARY OF PROJECT RATINGS AND KEY FINDINGS

Please refer to document GEF Office of Evaluation Guidelines for terminal evaluation reviews for further definitions of the ratings.

Performance Dimension	Last PIR	IA Terminal Evaluation	IA Evaluation Office evaluations or reviews	GEF EO
2.1a Project outcomes	S	MS	-	MS
2.1b Sustainability of Outcomes	**N/A**	S	-	MU
2.1c Monitoring and evaluation	**-**	S	-	MU
2.1d Quality of implementation and Execution	**NA**	**NA**	**NA**	MS
2.1e Quality of the evaluation report	**N/A**	**N/A**	-	S

2.2 Should the terminal evaluation report for this project be considered a good practice? Why?
The TE provides a good and comprehensive assessment of project outcomes and implementation, but it has some information gaps.

2.3 Are there any evaluation findings that require follow-up, such as corruption, reallocation of GEF funds, mismanagement, etc.?
None mentioned.

3. PROJECT OBJECTIVES

3.1 Project Objectives

a. What were the Global Environmental Objectives of the project? Were there any changes during implementation?

The GEO is "the mitigation and avoidance of GHG emissions thru the widespread adoption of renewable energy in rural Bolivia".

There were no changes to the GEO of the project.

b. What were the Development Objectives of the project? Were there any changes during implementation? (describe and insert tick in appropriate box below, if yes at what level was the change approved (GEFSEC, IA or EA)?)

According to the Project Document the Development Objective of this project was "to remove barriers to the successful implementation of rural electrification projects using renewable energy (RE) technology. Focusing on the financial, institutional, technical and human resource barriers, a sustainable and replicable program was to be developed and implemented in the country".
It specifies that "this project seeks to test out a process whereby rural communities can develop an organization to obtain financing for their renewable electrification investments, procure the renewable energy services from private sector providers, oversee installation of those systems, and contract for the maintenance of those systems.

There were significant changes during implementation:

Overall Environmental Objectives	Project Development Objectives	Project Components	Any other (specify)
	In the Tripartite Meeting on 7 June 2002, partners agreed to remove several quantitative targets and generate a substantive review of the Project appraisal document. After the substantive review, the overall project objective is: "(i) 22 RE projects installed, (ii) market conditions in place (access to credit and maintenance program), up-scaling the use of RE, and (iii) 50.6 metric tonnes of CO2 avoided per year per project."	Once the project started, the planned financial mechanism was deemed as inappropriate (especially for the dissemination of PVs) and an alternative mechanism was proposed, with new roles for actors.	

c. If yes, tick applicable reasons for the change (in global environmental objectives and/or development objectives)

Original objectives not sufficiently articulated	Exogenous conditions changed, due to which a change in objectives was needed	Project was restructured because original objectives were over ambitious	Project was restructured because of lack of progress	Any other (specify)
X			X	

4. GEF EVALUATION OFFICE ASSESSMENT OF OUTCOMES AND SUSTAINABILITY

4.1.1 Outcomes (Relevance can receive either a satisfactory rating or an unsatisfactory rating. For effectiveness and cost efficiency a six point scale 6= HS to 1 = HU will be used)

a. Relevance **Rating: S**

The project was highly relevant to national priority of support to rural electrification. In addition, renewable energy is an important component of the national program "Electricidad para Vivir con Dignidad" launched in 2008 by the national government. The project also intended to support a legislation to promote the empowerment of municipalities to define and implement their sustainable development strategies and priorities.

The project objective of creation of markets for renewable energy is one of the main strategies of the GEF CC Focal Area.
b. Effectiveness **Rating: MS**
Although the project was able to successfully implement many of its planned activities, it did not result in a clear reduction of barriers that limit the use of RE technologies. The Project has accomplished the target of installing 3000 PV units. The number of facilities at the conclusion of Phase II, was 3523 units, and the number of credits granted was 3233. Phase III, initiated in 2007, will add to this volume a further 1203 units during 2008. An important result of the project is the implementation of the norm NB1056 which established technical criteria for the components, system design, and installation of solar panel systems (PV). This has allowed standardization of PVs at the national level. Although out of the 3 planned micro hydroelectric plants (MHPs), the project launched 2 (San Juan de Coripata Llojeta and San Jose), while 2 others (Santiago Siete Lomas and Inca Pucara) were under construction; the TE concludes that the process of implementing MHPs is now longer than it was before the project started. In addition, the TE found that towards the end of the project the executing agency was not following the objectives agreed in the project appraisal document, and therefore some activities that were important to ensure the sustainability of the project were not implemented. For example, the project was not able to create a mechanism for the implementation of the MHPs, did not result in opening a market for PV technology, and did not examined the financial parameters of the credit facility for PVs.
c. Efficiency (cost-effectiveness) **Rating: MU**
The completion date of the project was extended more than 5 times (finished in 2008 instead of 2003) with no increase in funding. The TE estimates the total project budget was high compared to the results, and notes that there is an amount of approx. U.S. $ 1.5 million whose purpose after the substantive review was not clearly described. The TE also concludes that cost-effectiveness in terms of CO_2 reduction per $ invested is low due to the use of PV technology and the low performance of the MHP component.

4.1.2 Impacts: summarize the achieved intended or unintended impacts of the project.

According to the TE, the main impact of this project has been to raise awareness of RE issues among relevant stakeholders, and has thus succeeded in reducing barriers related to human and institutional capacities. The project's most tangible impact was the preparation and implementation of the norm NB 1056, which has provided standards and an integral mechanism for quality control.

4.2 Likelihood of sustainability. Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE. Use a four point scale (4= Likely (no or negligible risk); 3= Moderately Likely (low risk); 2= Moderately Unlikely (substantial risks) to 1= Unlikely (High risk)). The ratings should be given taking into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

a. Financial resources **Rating: MU**
The revolving fund that was set in place for the installation of PV equipment had a steep decrease in activity after 2005. This is a clear indication that it was not possible (or no willingness) to continue this promotion mechanism. The TE states that it is unclear how the VMEEA intends to follow the use of the PV standard and how it would finance future installations. Developing confidence in the creditworthiness of RE technologies is essential to increase the levels of private funding; therefore failure in ensuring the sustainability of the revolving fund is a substantial risk to the overall objective of the project.
b. Socio political **Rating: ML**
Socio political context in Bolivia during implementation caused important delays but, at the time of project closure, support at the national level for the development of renewable energy alternatives was strong. Ensuring proper participation of government at the municipal level would have decreased risk due to political changes, but their participation during implementation was weaker than planned.
c. Institutional framework and governance **Rating: MU**
The TE concludes that the VMEEA was the right choice for EA, but that institutional capacity is still low and therefore scaling-up of PV at the national level still faces an important obstacle. The TE mentions that the project was not able to establish a clear institutional arrangement to promote the construction of the small-scale hydro power plants. Therefore, it is not clear which organization will take up this role after the project is completed. Finally, the TE questions the centralized system that exists in VMEEA and the short-term agreements that are currently under place with the FONDESIF in charge of the finance mechanism for the PVs.
d. Environmental **Rating: L**
There information included in the TE does not mention risks to the environmental sustainability of this project.

4.3 Catalytic role

a. Production of a public good The project resulted in the construction of 2 micro hydroelectric power plants, and the installation of 3523 Photo-voltaic units. The project aimed to achieve an emission reduction of 50.6 metrics tones of CO2 per year for each one of these plants, but the TE does not include an assessment of this.
b. Demonstration The project has helped to finance the final design of the standard and the verification work for PVs. Representatives of IBNORCA reiterated that several neighboring countries (Brazil, Peru) have followed the development of the standard and showed great interest to implement a similar option in their own regulations.
c. Replication No replication of project results.
d. Scaling up No scaling-up of project results.

4.4 Assessment of processes and factors affecting attainment of project outcomes and sustainability.

a. Co-financing. To what extent was the reported cofinancing (or proposed cofinancing) essential to achievement of GEF objectives? Were components supported by cofinancing well integrated into the project? 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 it did, then in what ways and through what causal linkages?
The difference between planned and actual co-finance was due to the change of the financing mechanism during project implementation (the original mechanism based on the new Participation Law "Ley de Participacion Ciudadana" was deemed not feasible), which resulted in a reduction of approximately US$ 1.4 million. The TE mentions that it was not possible to find exact figures of expenses for all components, so it is difficult to assess whether this budget reduction had a strong negative effect on any specific project component.
b. 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 it did, then in what ways and through what causal linkages?
Deficiencies in the original project document also resulted in a slow start because of the need to refocus some components of the project (the midterm review had to be postponed until 2003, the year the project was originally planned to close). This project also suffered serious delays caused by changes in government and numerous social protests and mobilizations at the national level. These protests resulted in a serious halt of activities related to the MHP component, which explains why the project was not able to deliver the original goals of those components.
c. 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.
The TE mentions that even with all the changes in government during the project implementation, the EA was able to clearly raise awareness on renewable energy and to position it as an important component of the national rural electrification program.

4.5 Assessment of the project's monitoring and evaluation system based on the information in the TE

a. M&E design at Entry Rating (six point scale): MU
The project document indicates that the monitoring component is particularly important as it "will have to document the different institutional and technological choices made by the communities and keep track of the repayment records" but the copy available for the evaluator to review did not contain a Logframe or description of an M&E system. The mid –term review noted that the project document lacked verifiable Indicators for monitoring the project and evaluating its performance. The TE notes that at the time of project development the use of logical frameworks was not as developed as it is now. According to the TE, the indicators used were not always the most successful and only those relating to Outcome 4 were quantitative, in addition, there was some dependence among indicators.
b. M&E plan Implementation Rating (six point scale): MU
The TE concludes that the M&E reports of the meetings show that there was proper follow-up of the project from UNDP and the EA. Although the TE does not provide complete information regarding M&E implementation, the fact that the project was able to adapt changes that happened during its implementation is an indication of adaptive management. But, at the same time, the TE mentions several examples that show that M&E was not implemented in a rigorous manner. These include: inconsistencies in the data included in the PIRs, UNDP was unable to provide the evaluator with a complete list of project visits, In addition, the TE states that none of the partners involved in the implementation of the MHPs was able to provide complete and accurate information on the use of resources. This is a

clear indication that a useful M&E system was not set in place.
b.1 Was sufficient funding provided for M&E in the budget included in the project document? Yes, according to the project appraisal document, the budget for project management and supervision was of $1.03 US Million.
b.2a Was sufficient and timely funding provided for M&E during project implementation? There is no mention of lack of funding for M&E.
b.2b To what extent did the project monitoring system provided real time feed back? Was the information that was provided used effectively? What factors affected the use of information provided by the project monitoring system? The TE does not provide enough information to make this assessment.
b.3 Can the project M&E system (or an aspect of the project M&E system) be considered a good practice? If so, explain why. No, the M&E was not implemented in a systematic way, and the TE found gaps and inconsistencies in the reporting.

4.6 Assessment of Quality of Implementation and Execution

a. Overall Quality of Implementation and Execution (on a six point scale): MS
b. Overall Quality of Implementation – for IA (on a six point scale): MS
Briefly describe and assess performance on issues such as quality of the project design, focus on results, adequacy of supervision inputs and processes, quality of risk management, candor and realism in supervision reporting, and suitability of the chosen executing agencies for project execution. According to the TE, UNDP played a very important role of facilitator in an efficient and successful manner. The TE also mentions that it is important to recognize that UNDP was able to keep the project in the heart of the electrification program in Bolivia, despite a tense and complex political context during implementation. The TE states that the project design had some weaknesses. The project concept, to some extent proposed a solution (funding mechanism) before doing an analysis of the predominant barriers. In the case of MHPs, the institutionalization within the government created new barriers. The evaluators found that the PDF-B did not provide sufficient details of the legal / institutional context, for a project as complex as this one. Regarding the choice of Executing Agency, the TE questions if this type of project dealing with promoting renewable energies which are dispersed and small in nature, should be executed by a central government organization at the project level. Regarding supervision, the TE mentions that although there were several field visits to the project, the national UNDP office could not provide a complete list of missions and that the quality of the reports was not consistent: in many cases PIR information filled in by the project coordinator did not respond properly to set indicators.
c. Quality of Execution – for Executing Agencies[1] (rating on a 6 point scale): MS
Briefly describe and assess performance on issues such as focus on results, adequacy of management inputs and processes, quality of risk management, and candor and realism in reporting by the executive agency. According to the TE, institutional arrangements were appropriate in terms of positioning the project within the Government of Bolivia, but that they could have been more effective if they had been designed in more detail. It concludes that the EA showed a good capacity for adaptive management that allowed them to implement the project successfully regardless of initial weaknesses in the project design. On the other hand, the TE questions whether the division of roles between UNDP and VMEEA was the most appropriate. The project lacked supervisory structures (eg. steering committee) and as a result, the VMEEA had control over the project agenda and dictated the pace of work and priorities. Elements of the project that were not relevant to the Ministry (as the analysis of performance of the revolving fund and systematization of information and lessons learned) were not executed.

5. LESSONS AND RECOMMENDATIONS

Assess the project lessons and recommendations as described in the TE

a. Briefly describe the key lessons, good practice or approaches mentioned in the terminal evaluation report that could have application for other GEF projects
- the rural poor are not homogeneous: their socioeconomic profiles vary from place to place as well as their reasons for wanting access to electricity via PV.

[1] Executing Agencies for this section would mean those agencies that are executing the project in the field. For any given project this will exclude Executing Agencies that are implementing the project under expanded opportunities – for projects approved under the expanded opportunities procedure the respective executing agency will be treated as an implementing agency.

- The project should not underestimate the institutional complexity of preconceived solutions (such as the revolving fund), particularly within the public sector. One solution could be to avoid complex project designs when institutional and practical implications are difficult to predict.
- The administration and management of contracts for small hydro systems was not efficient and did not yield satisfactory results. The obligation to tender the works complicates the implementation of projects, the bidding process are not appropriate for small projects and do not consider the role of UNDP as implementing agency. Experience suggests finding other forms of execution, such as awarding a group of these works to a public or a private company.
- Substantive changes on the project should be properly documented, including a detailed review of the budget in terms of major objectives. In this respect, each contract and release should have an indicator that relates to the objectives of the project, possibly following the structure of the logical framework.
- Processes in the project must have a single responsible institution with the necessary mandate and powers to carry them out. In the design of GEF projects, this aspect often gets little attention; and it is of particular importance when dealing with public entities which are tied by specific powers and mandates. The preparatory phase should clearly identify the project processes, ensure that they are viable and take steps to reduce risks due to external factors. If there are external factors that may influence performance, the project strategy should give the guidelines for adaptive management.

b. Briefly describe the recommendations given in the terminal evaluation

- The VMEEA should extend the agreement with the FONDESIF for a longer time horizon (eg 5 years) and the state should continue its contributions to the fund (from the Superintendencia de Electricidad). A work plan with specific goals and mission in the number of beneficiaries and expected contributions from the donor community and private sector should be developed. The Fund's participation in FUNDA-PRO is encouraging but should not be an isolated case.
- The process for implementation of MHPs should be clarified, particularly regarding roles of the different stakeholders involved; and the process of preparing and reviewing public calls for PVs should be simplified.
- Government of Bolivia should advocate for the harmonization of donor programs and development banks in dialogue with partners. The presence of different active programs in the country gives rise to different financial conditions among beneficiaries, which creates confusion and sometimes unrealistic expectations.
- UNDP should always consider the establishment of a Steering Committee to function as the highest level of decision making for each project.
- GEF should draw lessons from this project for the development of future operational strategies. In the case of many developing countries, instead of pursuing a comprehensive removal of barriers to reduce the incremental costs of RE, it could be more efficient to work in the most obvious barriers and achieve partial results.
- VMEEA should accelerate the rate of implementation of renewable energy systems (not just PVs) and of energy saving devices (such as efficient lamps). Thus, there will be a clear signal to private initiative and capital funders, that renewable energy is a good business in Bolivia.

6. QUALITY OF THE TERMINAL EVALUATION REPORT

6.1 Comments on the summary of project ratings and terminal evaluation findings based on other information sources such as GEF EO field visits, other evaluations, etc.

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Provide a number rating 1-6 to each criteria based on: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, and Highly Unsatisfactory = 1. Please refer to document GEF Office of Evaluation Guidelines for terminal evaluations review for further definitions of the ratings. Please briefly explain each rating.

6.2 Quality of the terminal evaluation report	Ratings
a. To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives? TE includes an assessment of relevant outcomes and impacts and project implementation.	S
b. To what extent the report is internally consistent, the evidence is complete/convincing and the IA ratings have been substantiated? Are there any major evidence gaps? In general the TE provides good supporting evidence, but there are occasions where ratings and final conclusions are not consistent with the information presented. An example is rating the project sustainability as "S" when there is evidence indicating problems with the financial sustainability and the TE even states that there are "doubts regarding the relevance of microcredits for PV systems".	MS
c. To what extent does the report properly assess project sustainability and /or a	S

project exit strategy? The TE includes analysis of project sustainability and mentions the lack of an exit strategy as an important risk.	
d. To what extent are the lessons learned supported by the evidence presented and are they comprehensive? TE contains useful and comprehensive lessons and recommendations.	HS
e. Does the report include the actual project costs (total and per activity) and actual co-financing used? The TE presents all required information and clearly identifies gaps in information regarding to the project finances.	HS
f. Assess the quality of the reports evaluation of project M&E systems? Although the TE includes an assessment of the M&E system, the information included in the M&E section focuses more on project supervision, not on the M&E system per se.	MS

7. SOURCES OF INFORMATION FOR THE PRERATATION OF THE TERMINAL EVALUTION REVIEW REPORT EXCLUDING PIRs, TERMINAL EVALUATIONS, PAD.
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