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GLOBAL ENVIRONMENTAL FACILITY**

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PIMS No. 2042

**Accelerating Renewable Energy Investments  
through CABEI in Central America  
(ARECA)**

**Final Terminal Evaluation Report**

TE time frame: November 2015 through February 2016

GEF Focal Area: Climate Change

GEF Strategic Program: CC1

Executing Agency and Project Partner

Central American Bank for Economic Integration (CABEI)

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The analysis and recommendations of this report do not necessarily reflect the opinions of UNDP, its Executive Board or of the Members of the United Nations. This publication only reflects the opinion of the author.

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The Evaluator had the support of all the persons that have been interviewed to understand the context in which the Project has been developed, analyze the progress to date of the different activities that have been programmed and elaborate the conclusions and recommendations presented in this report.

## Abbreviations and Acronyms

ACOPE	Costa Rica Association of Power Producers
AGER	Association of Renewable Energy Generators in Guatemala
AHPER	Honduran Association of Small Producers of Renewable Energy
ALIDES	Central American Alliance for Sustainable Development
ANACAFE	Guatemalan National Coffee Association
ANPPER	Nicaraguan Association of Promoters and Producers of Renewable Energy
APPER	Panamanian Association of Renewable Energy Producers
ASER	Salvadoran Association of Renewable Energy Producers
ASI	Salvadoran Association of Industrialists
BF-SMME	Biodiversity friendly small micro and medium size enterprise
BUN-CA	Biomass Users Network for Central America
CABEI	Central American Bank for Economic Integration
CACM	Central American Common Market
CAFTA-DR	Dominican Republic Central America Free Trade Agreement
CAMBio	Central American Markets for Biodiversity UNDP-GEF project
CCAD	Central American Commission for Environment and Development
CEPAL	Economic Commission for Latin America
CIRR	Commercial Interest Reference Rate
COEX	Department for External Cooperation Programmes (at CABEI)
CO <sub>2</sub>	Carbon Dioxide
CPAP	Country Programme Action Plan
€	Euro
EEP	Energy and Environment Partners with Central America
EIA	Environmental Impact Assessment
ESCOs	Energy Services Companies
FERCCA	Renewable Energy Federation for Central America
FONTEC	Spanish Consulting Fund (Fondo Español de Consultoría)
GEF	Global Environment Facility
GHG	Greenhouse Gases
GIZ	Deutsche Gesellschaft Zusammenar für Internationale GmbH – German Development Agency
GWh	Gigawatt-hours
IADB / BID	Inter-American Development Bank
INDC	Intended Nationally Determined Contribution
IFI	Intermediary Financial Institutions
IR	Inception Report
IW	Inception Workshop
kW	kilowatt
MIF	Multilateral Investment Fund (IDB private sector window)
MW	Megawatts
NGO	Non-governmental organization
ODA	Official development assistance
OFP	Operational Focal Point

PCU	Project Coordination Unit
PDF B	Preparation Development Facility, block B
PESIC	Energy Efficiency Measures in the Honduran Industrial and Commercial Sector project
PIM	Project Implementation Meeting
PPA	Power Purchase Agreement
PREA	CABEI's Strategic Programme and Acquisition Department (as per its abbreviation in <i>Spanish – Jefatura de Programas Estrategicos y Adquisiciones</i> )
PRG	Partial Risk Guarantee
PRODOC	Project Document
PSC	Project Steering Committee
QPR	Quarterly Project report
RCU	Regional Coordination Unit
RE	Renewable energy
RO	Regional Office
ROAR	Results Oriented Annual Report
SIEPAC	Interconnected Central American Electricity Grid
SMME	Small, micro- and medium-sized enterprise
SMREP	Small and medium sized renewable energy project
TA	Technical Assistance
TOR	Terms of Reference
UNDAF	United Nations Cooperation Framework
UNDP	United Nations Development Programme
UNDP-CO	UNDP Country Office

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## Executive Summary

### Project Summary Table

The following table summarizes the Project information

PROJECT SUMMARY TABLE				
<b>Project Title: Accelerating renewable energy investments through CABEL in Central America</b>				
GEF Project ID:	975		<i>at endorsement (US\$)</i>	<i>at completion (US\$)</i>
UNDP Project ID:	PIMS 2042	GEF financing:	<b>6,920,000</b>	<b>6,920,000</b>
Country:	Honduras	<b>IA/EA own:</b> <ul style="list-style-type: none"> <li>-IA- UNDP (Honduras)</li> <li>EA-CABEL</li> </ul>	<b>575,000</b>	<b>597,958</b>
			75,000.00	75,000.00
			500,000.00	522,958
Region:	Central America	Government:	n.a.	
Focal Area:	Climate Change / Renewable Energy	<b>Other:</b>	<b>81,600,000</b>	<b>238,462,732</b>
		CABEL (loan)	25,000,000	58,318,700
		CABEL (Pre-investment loan / donation)	600,000	987,915
		Investors / Banks	56,000,000	179,156,117
Operational Program:	6	Total co-financing:	<b>82,175,000</b>	<b>239,060,690</b>
Executing Agency:	Central American Bank of Economic Integration (CABEL)	Total Project Cost:	<b>89,095,000</b>	<b>245,980,690</b>
Other Partners involved:	Government of Finland	PRODOC Signature (date project began):		16-May-2007
		(Operational) Closing Date:	Proposed: June 2016	Actual: n.a.

## Project Description

The overall objective of ARECA<sup>1</sup> is to accelerate investments in small and medium sized renewable energy projects (SMREPs) - under 10 MW- by strengthening the ability of the CABI to play a catalytic role in this important sector. The Project is based on a regional approach, involving Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. The specific objective of this Project is the removal of financial barriers that currently impede the large-scale development of renewable energy (RE) projects in Central America, particularly at the smaller end of the project range including:

- Integration of small-scale RE project development and lending strategies internally at CABI;
- Development of a small-scale RE pipeline to be included in the lending portfolio of CABI;
- Development of appropriate risk mitigation mechanisms, specifically a US\$ 5 million GEF-funded Partial Risk Guarantee (PRG) facility, to increase the availability of investment capital and bank financing for RE projects of less than 10 MW;
- CABI will enhance the participation of selected national lenders in the financing of such projects, by promoting more advanced project evaluation techniques and deploying the PRG mechanism for their benefit;
- Capacity building in the area of RE project evaluation and the design of appropriate financial packages to address the specific risks of SMREPs;
- Increase in available information relating to the RE market in Central America;
- Development of collaborative arrangements between CABI, the Intermediary Financial Institutions (IFI) and other financial players in the Central American RE market; and,
- Support for increased market penetration through expanded financing opportunities.

## Evaluation Rating Table

The tables below provide summarized evaluation ratings for both the project components/objectives, as well as specific project design, implementation and results aspects (e.g. M&E, IA & EA execution, sustainability etc.)

Component	Rating
<b>Global objective</b>	<b><i>Highly Satisfactory</i></b>
<b>Development objective</b>	<b><i>Highly Satisfactory</i></b>
<b>Component 1</b> CABI assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	<b><i>Highly Satisfactory</i></b>
<b>Component 2</b> CABI and IFIs have developed the capacity (technical and financial) to finance SMREPs	<b><i>Satisfactory</i></b>
<b>Component 3</b> SMREPs receiving financing through the Partial Risk Guarantee Facility and other innovative financing mechanisms	<b><i>Highly Satisfactory</i></b>
<b>Component 4</b> Evaluating, learning and adaptive management are ensured	<b><i>Highly satisfactory</i></b>
<b>Overall Project</b>	<b><i>Highly Satisfactory</i></b>

<sup>1</sup> ARECA - Accelerating renewable energy investments through Central American Bank for Economic Integration in Central America

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. IA& EA Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation	S
M&E Plan Implementation	S	Quality of Execution - Executing Agency	S
Overall quality of M&E	S	Overall quality of Implementation / Execution	S
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources:	L
Effectiveness	S	Socio-political:	L
Efficiency	HS	Institutional framework and governance:	L
Overall Project Outcome Rating	HS	Environmental :	L
		Overall likelihood of sustainability:	L

Results for each of the Outcomes / Outputs are summarized in the table below

Objective /Outcome / Output	End of Project Target	End of Project Status
<b>Objective:</b> To remove the main financial, capacity and project development barriers and to catalyze investment in small/medium scale RE projects (SMREPs under 10 MW) in Central America	Financing for 30-40 MW of SMREPs committed by CABEL and its IFIs, in the form of at least 12 SMREPs	52 MW of SMERPs have been financed by CABEL and its IFIs in the form of 22 projects totaling over US\$ 144 million of investments
	At least 10MW installed and operating by the end of the project.	18 SMREPS with a total installed capacity of 38 MW are being built or in operation
	The \$5 million partial risk guarantee (PRG) mechanism has been used to leverage at least US\$80 million for SMREP development.	12 PRG have been issued of which 11 are still in force with a direct leveraging over US\$ 21 million for SMREP development In all, CABEL and its IFIs have catalyzed investments in SMREPs under 10MW of over US\$ 144 million with an estimated reduction of CO <sub>2</sub> emissions of 167,931 tons per year
<b>Outcome 1:</b>		
CABEL assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	CABEL has a strategy and a partnership with a local IFI in each member country to develop SMREPs.	Achieved with the exception of Panama where projects will be financed through IFIs in Costa Rica until an

		agreement is achieved with local IFIs in Panama.
<b>Output 1.1</b>		
Internal strategy, policy and/or procedures, and structure established within CABEI to support the financing of SMREPs in the region	Active pipeline and portfolio of SMREPs in CABEI by end of year 3	CABEI has developed a comprehensive strategy with sounding policies and procedures to promote the development of SMREPs
<b>Output 1.2</b>		
Regional renewable energy market analyzed on an ongoing basis	Review of policy and regulatory frameworks on each country is available.	Since its inception ARECA has prepared over 20 market evaluations across the region including an assessment of the RE market trends and current opportunities and an analysis of the policy and regulatory frameworks for each of the countries in the region.
<b>Output 1.3</b>		
Formalized synergies established among available and future financial institutions and instruments relevant for financing of SMREPs on a project finance basis	Document relating to SMREPs identifying all equity, loan, concessional loans and guarantee is elaborated and widely disseminated by end of project year 1. Updated as necessary.	First edition of the procedures manual for granting PRGs was issued in early 2009 and been subject to continues updates
<b>Outcome 2:</b>		
CABEI and IFIs have developed the capacity (technical and financial) to finance SMREPs	Evaluations of SMREP projects are conducted by CABEI's country office and partner IFIs in each member country.	Achieved with the exception of Panama where no contract with local IFIs have been signed yet and the market conditions for the implementation of SMREPs are not ripe.
<b>Output 2.1</b>		
In-house capacity developed in CABEI Head Office, Country Offices and IFIs to identify/evaluate/finance SMREPs and implement the PRG	Trained and specialized human resources are in place in CABEI Head Office, Country Offices, and Partner IFIs to assess SMRE projects (80 to 100 individuals)	Special capacity building seminars have been held for the benefit of over 700 representatives of IFIs and CABEI personnel. In addition, ARECA has been performing training workshops and monitoring projects that are in the process of obtaining financing from the 37 IFIs with which ARECA has signed agreements for granting PRGs.
<b>Output 2.2</b>		

Increase awareness of SMREP financing (including PRG) opportunities and modalities among all relevant stakeholders, including RE project developers in particular	Training sessions on business planning and RE project financing offered. Workshops to disseminate financing modalities and train stakeholders on project development, business planning, utilization of PRG, and banking proposal preparation. At least one training event in each country (30 participants) for project developers, NGOs, and potential investors over the project lifetime	The inception Workshop took place in Nov 2007. Since then, ARECA has organized over 80 workshops and forums with the presence of over 4,000 project developers, investors, and representatives of NGOs in all of the countries of the region
	Promotional materials prepared and disseminated	All of the promotional material, market studies and the results achieved by the Project are available at the Project website for access by interested parties
<b>Output 2.3</b>		
Feasibility work funded through CABEL and other pre-feasibility funding sources€	Feasibility studies for at least 10 to 15 projects have been prepared by the end of the project.	ARECA has succeeded in getting CABEL in association with other donors to contribute over US\$ 1.4 million to undertake more than 20 feasibility studies. In addition, with the establishment of the Technical Assistance Fund ARECA has supported design and final studies for 13 projects. However, the first tranche of the TA fund (US\$600,000) were destined to evaluate the feasibility of only 2 projects. This was corrected with the implementation of the MTR which put a cap of US\$80,000 per feasibility study.
<b>Outcome 3:</b>		
SMREPs receiving financing through the Partial Risk Guarantee Facility and other innovative financing mechanisms	10 -20 loans approved to SMREPs by end of project	Achieved
	Collateral requirements and/or financing terms and conditions significantly improved for SMREPs	
<b>Output 3.1</b>		

Partial Risk Guarantee (PRG) mechanism established and operational	RE Guarantee Fund is established within CABEL during the first year of project	PRG program is operational Legal and contractual documentation relating to PRG and associated financing has been prepared and updated periodically to reflect changes in technology, market and / or financing conditions.
	Loan guarantee operational manuals issued, cleared and disseminated	Standard loan guarantee forms, procedures and operational manual for RE projects have been developed and have been modified and improved to reflect changes in the RE market and incorporate lessons learned
	IFIs familiar with Guarantee program and make use of available documentation appropriately.	A total of 37 agreements have been signed with IFIs for granting PRG. This is a direct reflection of the high degree of success that the PRG program has accomplished in filling the gap that has been preventing several SMREPs to reach financial closing. A great majority of the IFIs that have signed PRG agreements have not been involved in the financing of SMREPS in the past.
<b>Output 3.2</b>		
SMREPs identified, evaluated, and/or financed	5-10 projects financed by PRGM by end of year 3. PRG mechanism triggered approximately US\$ 80 M in investment in SMREPs by end of project	On a cumulative basis, ARECA has supported the financing of 9 SMREPs and triggered over US\$ 144 million of investments in SMREPs while there is a pipeline of 17 other SMREPs which have expressed interest in the PRG mechanism A sound proposal for the continuation of the ARECA program has been prepared but still needs to be approved by the PSC
<b>Output 3.3</b>		
Replication and exit strategy implemented	From year 4, interested parties approach CABEL with concrete proposal for	ARECA has succeeded in obtaining additional funding from the government of

	recapitalization amounting to around US \$1 5 million. Agreement signed by project end.	Finland with the signing in 2009 of the Trust Fund Agreement between the Ministry of Foreign Affairs of Finland and CABI for an initial amount of € 1 million which have been used to further capitalize the PRG fund.
<b>Output 4</b>		
Evaluating, learning and adaptive management are ensured	Project on schedule, meeting objective targets	The Project termination date had to be extended from December 2011 to December 2015 due to a slow project implementation during the first years
<b>Output 4.1</b>		
Comprehensive project impact monitoring and analysis system established	Tracking and analysis of project implementation (reports and reviews).	The monitoring of the project has been carried out successfully Reports that are developed periodically include: <ul style="list-style-type: none"> <li>▪ Project Annual Progress Reports</li> <li>▪ Project Implementation Reviews</li> <li>▪ Minutes of meetings of the Steering Committee</li> <li>▪ Presentations to the Steering Committee</li> <li>▪ Quarterly reports</li> </ul>
	All evaluations and audits conducted on time.	The MTR was conducted in mid-2011 and the Project has been subjected to annual internal audits and evaluations
<b>Output 4.2</b>		
Adaptive management systems established to inform and adjust project implementation based on lessons learned from monitoring system	A yearly (minimum) set of recommendations is issued and taken into account for adaptive management.	PSCC meetings have been held annually to assess the status of the Project and suggest changes to the logical framework and implementation strategy based on what has been learned from the monitoring system ARECA is a clear example of a good practice in collaboration between UNDP and development banks that

		has the potential to be replicated in other regions, or to be extended into a second phase in the Central American region where there is still ample potential for the implementation of SMREPs.
<b>Output 4.3</b>		
Regional information dissemination of project lessons and best practices for SMREP development and financing	Material available on the project's website accessed by interested parties.	This indicator has been exceeded given the large amount and high quality of material that is available at the website and the high number of visits and document downloads that continue to increase over time.

## Summary of conclusions, recommendations and lessons

### Conclusions

- ARECA has demonstrated the **effectiveness of a PRG mechanism in scaling up private investment in SMREPs** due to its ability to generate an important leverage.
- ARECA has also confirmed that a **PRG scheme must be part of comprehensive program** designed to tackle all of the identified barriers since a PRG scheme can only address some but not all of the barriers faced by borrower Hence, one of the important success factors has been the introduction of a **strong TA program** at both the supply and demand side of credit.
- Other key success factors of ARECA include:
  - The series of **in depth market assessments** that were undertaken the beginning of the project and the **proactive dialogues** that have taken place between CABEL and the IFIs
  - Its **operational flexibility and capacity to adapt to the specific needs of each target market.**
  - ARECA's strong **capacity building and awareness raising components** aimed at improving the identification of and technical and financial evaluation skills for SMREPs
  - Having a **dedicated staff of technical specialists and in-country facilitators** to support both project developers and local IFIs

The offering of a relatively **low guarantee fee** compared with other guarantee products in the market (i.e., 1.5 % as opposed to 3 to 4

## Recommendations

- **UNDP and CABEL need to agree on the operational rules for the remaining funds before Project termination together with the evaluation of a proposal to ensure the continuity of the PRG program.**
- **The structure of the new organization that will be in charge of taking the ARECA program forward and the new set of rules under which ARECA will operate should be defined ASAP.**
- **The gearing ratio of 1:3 which has been set for the PRG fund initially should be revised with the objective of determining how much higher it could be set at based upon the current conditions.**
- **The conditions upon which the TA funds are being granted should be revised** in such a manner that those Projects that have obtained TA and have been able to reach financing closing should be asked to return the TA funds to help maximize the use of the funds that have been allocated for TA.
- **In order to scale up investment in SMREPs more aggressively, the combination of the TA programs and the PRG scheme should be combined with other financial products** designed to address specific market needs in each of the countries
- **Continuation of the dissemination of best practices and lessons learned by the early takers of PRGs will be key to increase the use of the PRG scheme in the region.**
- **Aside from working with IFIs, ARECA should also consider working with National Development Banks** across the region.
- **Widening the range of eligible SMREPs to include energy efficiency projects and ESCOs is another aspect that ought to be considered** to widen the eligibility of projects that could applied for PRGs.
- **The possibility of offering different coverage rations and/ or fee structure depending on the characteristics of the project should be evaluated in order to better promote investments in SMREP that would best meet the specific needs of each country.**

## Lessons learned

In terms of lessons learned the following are the most important ones to take into consideration for the design of future programs:

- **ARECA is a clear example of a good practice of a successful collaboration between UNDP and development banks and has the potential to be extended into a second phase in the Central American region where there is still potential for the implementation of SMREPs and /or replicated in other regions.**
- **Implementation has been much slower than expected** and hence the duration of similar projects should be increased
- **Based on the poor performance of ARECA during the early years the MTR should have been done earlier.**
- **Lack of supporting regulatory frameworks and highly bureaucratic procedures to obtain the required licenses and PPAs** together with limited collateral and security

capacities of project developers continued to be the greatest barriers faced by SMREPs across the region.

- **The provision of an integrated financing package of technical assistance plus PRG has been crucial** to eliminate the barriers that have been preventing the implementation of SMREPs across the region and
- **The design and pricing of credit guarantee products should ensure that the transfer of credit risk from the lender to the guarantor does not lead to excessive risk-taking.** Otherwise, IFIs will not have incentives to carry out proper risk screening and credit monitoring and would rather be encouraged to take on high-risk borrowers that are willing to pay interest rates with relatively low risk to them.
- **Monitoring and evaluation will continue to be a top priority to guarantee ARECA's sustainability and success.** A program like ARECA needs to be continuously evaluated (and, if need be, re-calibrated and / or redesigned) in order to ensure that it will be fully responsive to the changing conditions of the marketplace in each of the countries where is being offered. Parameters that have to be monitored include changes in: technology, RE resource availability, legal and regulatory frameworks, electricity demand and supply conditions, skills knowledge of project developers and IFIs, in country capital and financial markets, type and number of market participants, as well as, changes in other economic, political or social barriers.

## 1. Introduction

In November 2015, United Nations Development Program (UNDP) of Honduras contracted Alfredo Caprile as an Independent Consultant to perform the Final Evaluation (TE) of the Project named **“Accelerating renewable energy investments through the Central American Bank for Economic Integration (CABEI) in Central America (ARECA)”**. The Project started in May 2007 and its completion date is now set for June 2016, having been extended from the original completion date of May 2012.

The overall objective of ARECA is to accelerate investments in small and medium sized renewable energy projects (SMREPs) - under 10 MW- by strengthening the ability of the CABEI to play a catalytic role in this important sector. The Project is based on a regional approach, involving Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica and Panama. The specific objective of this Project is the removal of financial barriers that currently impede the large-scale development of renewable energy (RE) projects in Central America, particularly at the smaller end of the project range including:

- Integration of small-scale RE project development and lending strategies internally at CABEI;
- Development of a small-scale RE pipeline to be included in the lending portfolio of CABEI;
- Development of appropriate risk mitigation mechanisms, specifically a US\$ 5 million GEF-funded Partial Risk Guarantee (PRG) facility, to increase the availability of investment capital and bank financing for RE projects of less than 10 MW;
- CABEI will enhance the participation of selected national lenders in the financing of such projects, by promoting more advanced project evaluation techniques and deploying the PRG mechanism for their benefit;
- Capacity building in the area of RE project evaluation and the design of appropriate financial packages to address the specific risks of SMREPs;
- Increase in available information relating to the RE market in Central America;
- Development of collaborative arrangements between CABEI, the Intermediary Financial Institutions (IFI) and other financial players in the Central American RE market; and,
- Support for increased market penetration through expanded financing opportunities.

### 1.1 Evaluation Purpose

In accordance with the policies and procedures for Monitoring and Evaluation of UNDP and the Global Environmental Facility (GEF), TEs are a mandatory requirement for all full size UNDP-Supported GEF-Financed projects.

The main aim of the TE is to provide an independent assessment of the Project's progress and impact. Project performance will be evaluated against the indicators mentioned in the logical framework. The complementary purposes of the TE are:

- To promote accountability and transparency and to disclose the extent of Project accomplishments;
- To identify lessons learned that could be helpful for improving the selection, design and implementation of future GEF financed UNDP activities and projects;
- To provide feedback on issues that are recurring across the UNDP portfolio;
- To contribute to the overall assessment of results in achieving GEF strategic objectives; and,
- To determine the extent of Project convergence with other UN and UNDP priorities.

## 1.2 Scope and Evaluation Methodology

The TE has been implemented in accordance with the Terms of Reference (see Annex I) and UNDP/GEF policies and procedures for monitoring and evaluation included in the “Guidance for Conducting Terminal Evaluations of UND-Supported GEF-Financed Projects<sup>2</sup>”. The evaluation is based on the five criteria defined in such guide which are:

- Relevance;
- Effectiveness;
- Efficiency;
- Results , and,
- Sustainability.

The following instruments have been used to gather project information and its progress and results:

- **Gathering of Project information and documentation.** Prior to the start of the mission to Tegucigalpa and Guatemala City the following Project documentation was gathered and reviewed:

### **Project Documents**

- Project Identification Form (PIF)
- Project Document (PRODOC)
- Project Annual Progress Reports 2008-2014
- Project Implementation Reviews (PIR) 2008 – 2014
- Minutes of meetings of the Steering Committee
- Presentations to the Steering Committee
- Quarterly Project reports (QPR)
- Mid Term Review

### **UNDP Documents**

- Honduras Development Assistance Framework 2007-2011 (UNDAF)
- Honduras Country Programme Action Plan (CPAP) 2007-2001
- Honduras Results Oriented Annual Reports (ROAR) 2009- 2014

### **GEF documents**

- GEF Focal area strategic programme objectives

During the mission to the Project office at CABEI, in Tegucigalpa Honduras, the following additional documents have been gathered:

- Co-financing – details of actual co-financing to date
- Approval process for the PRGs
- List of project events
- List of approved PRGs and TAs plus pipeline details
- Project Tracking Tool
- Financial data

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<sup>2</sup>See <http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>

- **TE Evaluation Matrix** with a list of the evaluation criteria, questions, success indicators, data sources, and methods and instruments that have been used for data gathering.
- **Mission to Tegucigalpa and Guatemala City (November 24<sup>th</sup> – December 1<sup>st</sup>, 2015)<sup>3</sup>.** The mission to Tegucigalpa and Guatemala City allowed for the conduct of a formal kick-off meeting of the TE, as well as, meetings with members of the Project team and representatives of UNDP in charge of the Project and face to face meetings with the key Project actors, beneficiaries and other interested parties. Annexes II, III and IV present the mission itinerary, list of persons interviewed and the list of documents reviewed during the mission, respectively.

### Information analysis

The documents gathered before and during the mission were analysed and compared with the information that was obtained during the meetings with UNDP, the Project team and the key actors, beneficiaries and other interested parties, as well as, the opinion of the interviewed parties with regard to the quality of the gathered information in order to verify consistency.

The principal limitation of the evaluation is related to the short duration of the mission. Even so, based on his experience, the Evaluator considers that the level of detail contained in the gathered information and of the opinions of the interviewees has been sufficient to undertake the TE in accordance with the guidelines established by UNDP and GEF.

## 1.3 Structure of the TE report

The TE report is structured in accordance with UNDP and GEF requirements. The summary of the key sections is presented below:

- **Executive Summary** with a brief description of the MTR objectives and an overview of the key findings and recommendations
- **Section 1 – Introduction.** In this section the objectives and scope of the TE are described together with the methodology which have been used to undertake the TE.
- **Section 2 - Project description and development context** including, Project start and duration, problems that the Project sought to address, immediate and development objectives of the Project, baseline indicators established, main stakeholders and expected results.
- **Section 3 – Findings.** In first place, the findings of the TE are presented starting with a review of the Project design and formulation including an analysis the logic framework, assumptions and risks and lessons learned from other relevant projects, as well as, other relevant aspects such linkages between the Project and other interventions within the sector and the management arrangements. Next key issues related to Project implementation including the adaptive management framework and partnerships arrangements with other relevant stakeholders involved in the region are discussed. Finally, the overall results of the Project are assessed and rated
- **Section 4 .Conclusions.** In this section the key conclusions are presented.
- **Section 5. Recommendations and Lessons Learned** detailing the evaluator's principal recommendations and lessons learned

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<sup>3</sup> Prior to the start of the mission a virtual kick-off was arranged via Skype with the presence of Mayelle Abudoj and Salvador Rivas from UNDP and Luis Cardona, ARECA project Coordinator to agree on the work plan and adjust the schedule of interviews.

## 2 Project description and development context

### 2.1 Project start and duration

The PRODOC was signed on May 16, 2007 and the Project was initially intended to have a duration of 5 years. The Mid-Term Review (MTR) commissioned in August 2011 recommended a one year extension, in part because ARECA has had a difficult start up and it required additional time to meet its proposed goals and objectives. Since then additional extensions have been granted and the Project is now scheduled to close on June 2016.

### 2.2 Problems that the project seeks to address

When the Project was designed back in 2007, forecasts indicated that power and energy production capacities in the Central America region will have to almost double over the next 8 years requiring the addition of over 6,000 MW of installed capacity, mainly due to rising economic growth and increasing urbanization. At that time, the installed capacity and electricity demand in Central America were in the order of 9,000 MW and 58,000 GWh per year, respectively.

At the same time, abundant RE potential had been identified for the region at pre-feasibility stage, way in excess of the additional capacity requirements anticipated in the short term while over 20% of the population had no access to electricity services, with the majority of these people living far from urban centres and electrical grids.

Expanding the grid for long distances tends to be economically prohibitive hence distributed generation is likely to be the most affordable option to close the gap, especially given the abundance of RE resources present in the region.

In spite of these favourable conditions for the development of SMREPs in Central America and particularly for those at the smaller end of the project range, private sector participation has been modest due to a number of institutional , technical and financial barriers that are still present.

ARECA sought to concentrate its efforts in addressing the following barriers:

- Lack of appropriate financing structures
- High level of committed and collateral investor equity requirements
- Lack of interest by large energy market participants in small projects
- High costs of up front studies
- Lack of sector knowledge by local banks
- Difficulties of project developers to provide the high level of guarantees that are being by banks

by:

- Improving the catalytic role of CABI in strategically promoting increased lending on project finance basis to SMREPs
- Increasing technical and financial capacities of CABI and the IFIs to finance SMREPs
- Realising of a US\$ 5 million GEF-funded PRG facility to leveraged the availability of equity and debt financing for RE projects under 10 MW together
- Establishing a US\$ 500,000 Technical Assistance (TA) Fund to develop final designs of eligible projects as a result of the recommendations made in the MTR of the Project.

## 2.3 Immediate and development objectives of the Project

The immediate objectives of the Project at its inception are summarized by the outcomes below as stated in the PRODOC:

- **Outcome 1: CABEL assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs**
  - Internal strategy, policy and / or procedures and structures established within CABEL to support financing of SMREPs in the Region
  - Regional RE market analyzed on an ongoing basis
  - Formalized synergies established among available and future financial institutions and instruments relevant for financing SMREPs on a project finance basis
- **Outcome 2: CABEL and IFIs have developed the capacity (technical and financial) to finance SMREPs**
  - In-house capacity development developed in CABEL Head Office, Country Offices and IFIs to identify / evaluate / finance SMREPs and to implement the PRG facility
  - Increase awareness of SMREP financing (including PRG) opportunities and modalities among all relevant stakeholders, including RE project developers in particular
  - Feasibility work funded through CABEL and other pre-feasibility funding sources
- **Outcome 3: SMREPs receiving financing through the PRG Facility and other financing mechanisms**
  - PRG mechanism established and operational
  - SMREPs identified, evaluated and /or financed
  - Replication and exit strategy implemented
- **Outcome 4: Evaluating, learning and adaptive management ensured**
  - Comprehensive project impact monitoring and analysis system established
  - Adaptive management systems established to inform and adjust Project implementation based on lessons learned from monitoring system
  - Regional information dissemination of Project lessons and best practices for SMREP development and financing

During implementation and as a result of the recommendations made by the MTR, the Project took on additional objectives in the form of establishing a US\$ 500,000 fund for technical assistance to develop the final designs of eligible projects (i.e., in the amount of up to US\$ 80,000 per project) and to integrate ARECA with the “Mipymes Verdes” initiative<sup>4</sup>

In terms of global environmental impact, the objective of the Project is to reduce the emissions of Greenhouse Gases (GHG) in the Central America region through accelerated investments in RE projects under 10 MW to replace sector investments based on fossil fuels.

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<sup>4</sup> A tripartite initiative implemented by CABEL with the financial support from the government of Germany (through KfW) and the European Union which has funds for financing small-scale RE and EE projects amounting to US\$44.5 million dollars and a program of technical cooperation amounting to US\$ 4.5 million, intended to provide technical cooperation to financial institutions, for the realization of energy diagnostics and studies for RE projects, coupled with the promotion and awareness of the issues.

## 2.4 Baseline Analysis and Project Indicators

As part of the Project preparation phase, the baseline conditions for the Project were defined by the participation of CABEL and other IFIs in financing small and medium size RE projects in Central America, in the absence of GEF support and the following Project Indicators were established with respect to each of the Project outcomes, as presented below.

Table 1 Project Indicators

Outcome	Project Indicator
1. CABEL assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	<ul style="list-style-type: none"> <li>▪ CABEL is perceived as a leading institution for the development of SMREPs;</li> <li>▪ Financing SMREPs has been fully mainstreamed in CABEL's energy sector strategy; a unit supporting SMREP financing exists; staff are aware of policies/procedures;</li> <li>▪ Regional energy market characteristics (policy, pricing, taxes) are available to CABEL and IFI staff on an ongoing basis;</li> <li>▪ Simplified documentation is available relating to small-scale renewable energy identifying all equity, loan, concessional loans and guarantees and publication of periodic reviews for benefit of RE project sponsors; and,</li> <li>▪ Periodic meetings occur between CABEL and IFIs to develop synergies in relation to SMRE project finance.</li> </ul>
2. CABEL and IFIs have developed the capacity (technical and financial) to finance SMREPs	<ul style="list-style-type: none"> <li>▪ CABEL (Headquarters and Country Offices) and IFI's are identifying and evaluating SMREPs;</li> <li>▪ Seminars and training sessions on RE project financing offered;</li> <li>▪ Awareness among IFIs regarding CABEL's RE financing strategy. Project identification workshop held to invite short listed IFIs, RE project sponsors and external RE project specialists; and,</li> <li>▪ Internal guidance available regarding feasibility funding, including the option of receiving TA funding from CABEL on a reimbursable loan basis.</li> </ul>
3. SMREPs receiving financing through the Partial Risk Guarantee Facility and other innovative financing mechanisms	<ul style="list-style-type: none"> <li>▪ Number of loans through PRG to SMREPs approved by CABEL and IFIs;</li> <li>▪ Reduced collateral requirements by IFIs for SMREPs;</li> <li>▪ PRG mechanism is established and operational within CABEL, including all required supporting documentation prepared and disseminated for PRG;</li> <li>▪ RE projects identified, evaluated and/or financed;</li> <li>▪ PRG mechanism accessed; and,</li> <li>▪ CABEL's success in attracting other investors to the PRG.</li> </ul>
4. Evaluating, learning and adaptive management are ensured	<ul style="list-style-type: none"> <li>▪ The Project applies lessons learned and adapts to the changing environment, thereby helping to achieve its objective;</li> <li>▪ high-quality information available for the project manager, project team and key stakeholders for decision-making;</li> <li>▪ External evaluations and financial audits prepared;</li> <li>▪ Bi-yearly revision of project Logical Framework and implementation strategy based on inputs from monitoring system. This project will adapt the financial instrument should this one not meet expectations; and,</li> <li>▪ Opportunities for stakeholders to learn about regional experience with SMREP development and financing.</li> </ul>

## 2.5 Main Stakeholders

Among the key institutions and organizations involved and / or interested in the implementation of SMREPs are:

- CABI
- IFIs
- Private project developers and investors including
  - PH Peña Flor. Juan Pablo Cordon
  - PH Los Patos. Víctor Mijangos
  - PH Carmen Amalia. Roberto Fernandez
  - PH La Ceiba. Sebastián Amezquita
  - Planta de Generación de Biomasa. Christian Colindres
  - PH Quilio. Juan Carlos Eguigurens
  - PH Aguas Vivas. Enrique Chinchilla
  - PH Zinguizapa and PH San Alejo. Boris Arevalo
  - PH El Molo. Oscar Rene Castillo
  - PH Santiago. Gerardo Ochoa
  - PH El Jícaro 1. Elsie Paz, and
- RE associations
  - **Guatemala**
    - National Association of Generators (*Asociación Nacional de Generadores*)
    - Association of Renewable Energy Generators (*Asociación de Generadores de Energía Renovable*)
  - **El Salvador**
    - Renewable Energy Association of El Salvador (*Asociación Salvadoreña de Energía Renovable*)
  - **Honduras**
    - Honduras Association of Electric Energy Producers (*Asociación Hondureña de Productores de Energía Eléctrica*)
  - **Nicaragua**
    - Nicaraguan Association of Renewables (*Asociación Renovables de Nicaragua*)
    - Nicaraguan Association of Renewable Energy Promoters and Producers (*Asociación Nicaragüense de Promotores y Productores de Energía Renovable de Nicaragua*)
  - **Costa Rica**
    - Costa Rican Association of Renewable Energy Producers (*Asociación Costarricense de Productores de Energía Renovable*)
  - **Panama**
    - Panamanian Association of Renewable Energy Producers (*Asociación de Productores Panameños de Energías Renovables*).

In addition, RE equipment suppliers and engineering and construction companies should be added to this list.

### 3 Findings

This section presents the findings of the TE in relation to: (i) key Project design / formulation aspects including a critical assessment of the results framework, (ii) the Project implementation approach and (iii) the Project results.

#### 3.1 Project Design / Formulation

In general terms, the Evaluator considers that the design and formulation present a sound foundation for accelerating RE investments through CABI in Central America. At the time of its inception in 2007, the Project was timely and highly relevant to help remove the financial, capacity and RE development barriers which have been preventing the implementation of SMREPs in the region, given the urgent need of the countries in the region to reduce their oil dependency and shield themselves from high oil prices. In addition, the characterization of the current situation and expected results, as well as, the identification and definition of the different barriers which would need to be removed are conceptually well defined.

The Project had a slow and difficult start-up period. The major difficulties faced by the Project can be summed up in: (i) the delays and changes in the establishment of the Project Coordination Unit (PCU) and (ii) the time that it took to obtain internal approvals at CABI for the various documents and manuals that have been developed related to the approval of the PRGs and the TA to be offered to SMREPs by ARECA.

The PRODOC was signed in May 2007 and it was not up until October 2007 that the first Project Director and the Project Coordinator were nominated. The Inception Workshop was held in November 2007 and a new Project Director was designated in January 2008.

In October 2008 the Project enters into a transition phase due to the fact that CABI decides not to renew the contract of the initial Project Coordinator and its replacement is not designated until April 2009. The second Project Coordinator resigned in December 2011 and it took until May 2012 to incorporate the third Project Coordinator which is still on board.

The Evaluator attributes many of the Project shortcomings that occurred until the end of 2011 to the changes in the Project management and more importantly to the transition period without a Project Coordinator and the lack of continuity that this situation generated, as pointed out in the MTR that was finalized in August 2011. Among others, the MTR recommended to:

- Extend the Project end date by one year;
- Establish a Technical Assistance (TA) fund to support those RE projects which are close to reach its technical and financial closings ;
- Increase the level of capacity building provided to IFIs on how to approach the evaluation of RE projects; and,
- Increase the amount of coverage of the PRGs.

During the second half of its implementation, ARECA has been able to achieve and in most instances exceed its end of Project goals, primarily as a result of the implementation of the MTR recommendations and the hiring of the actual Project Coordinator and his team that have worked very hard in order to revert the fate of the Project.

ARECA is now reaching its termination. However, CABI has not yet designated the new manager / team that will be taking over ARECA's PRG and TA funding programs. In order to ensure a smooth and effective transition it is critical that the new team of professionals that will take over

ARECA's responsibilities work alongside the current ARECA team for a period of 4 to 6 months or at a minimum the Project Coordinator should remain as a consultant to facilitate the handover of ARECA activities to CABEL for that period of time.

Among its key achievements, ARECA has been able to:

- **CABEL is now strategically positioned to participate in the financing of RE investments in the region with at least 12 SMREPs.** To date, ARECA has succeeded in catalyzing new investments (from CABEL and its IFIs) for a total of US\$ 179,156,117 for 27 SMERPs resulting in a total installed capacity of 52 MW and an estimated direct annual GHG emissions avoided of almost 170,000 tons of CO<sub>2</sub>, as shown below.

Table 2 CABEL / IFIs financed projects

Project Name	Installed Capacity (MW)	Investment Cost (US\$)	Direct annual GHG emissions Avoided (Tons of CO <sub>2</sub> )	Financial Institutions Involved
Mezapa	9.400	22,600,000	28,800	CABEL, CIFI y Bio
Los Laureles	4.800	16,226,350	21,111	CABEL, FICOHSA
Vara Blanca	2.650	8,441,783	5,596	IMV, BCT (Refinanced with BNCR)
El Angel	3.800	11,050,567	8,463	IMV, BCT (Refinanced with BNCR)
Morja	8.600	20,015,494	27,761	Banco Continental
Zinguizapa	2.970	10,573,038	10703	BANCATLAN
Coralito	1.750	4,320,000	6,090	BAM
Quilio	1.300	2,700,632	4,581	BANPAIS
Porcina Americana	0.350	1,500,000	1,196	BICSA
San Alejo	2.117	5,468,984	6,204	LAFISE
Borja Letona	0.350	1,015,053	2,238	BANDESAL
Peña Flor	0.598	2,018,817	1,843	IMV
Club Campestre	0.064	181,222	52	BAC San José
Florex	0.032	75,000	49	BAC San José
Na Lakalú	0.187	410,000	37	IMV, PROMERICA
San Luis	2.095	6,556,517	6,509	BANRURAL
JORCASA	0.007	17,000	1	BAC San José
MENA	0.001	20,500	1	BAC San José
Miraflores	0.895	2,083,000	2,512	Banco Industrial
Los Patos	5.000	12,000,000	17,367	FIDOSA - BANRURAL
San Rafael	4.200	15,411,600	13,398	G&T
Santa Ana	0.700	1.800.000	3,420	BAM
El Panal	3.080	6,000,000		
Boralia	2.500	7,000,000		
Cerro I y II	2.000	4,500,000		
Rio Mongoy	0.500	2,500,000		
Vert Energy	2.500	5,100,000		
<b>TOTAL</b>	<b>65.000</b>	<b>179,156,117</b>	<b>182,757</b>	

The projects listed in the following table are under construction or have been built already.

*Table 3 –CABEI/ IFI's financed projects under construction or already built*

Project Name	Installed Capacity (MW)	Investment Cost (US\$)	Direct annual GHG emissions Avoided (Tons of CO <sub>2</sub> )	Financial Institutions Involved
Mezapa	9.400	22,600,000	28,800	CABEI, CIFI y Bio
Los Laureles	4.800	16,226,350	21,111	CABEI, FICOHSA
Vara Blanca	2.650	8,441,783	5,596	IMV, BCT (Refinanced with BNCR)
El Angel	3.800	11,050,567	8,463	IMV, BCT (Refinanced with BNCR)
Morja	8.600	20,015,494	27,761	Banco Continental
Zinguizapa	2.970	10,573,038	10703	BANCATLAN
Coralito	1.750	4,320,000	6,090	BAM
Quilio	1.300	2,700,632	4,581	BANPAIS
Porcina Americana	0.350	1,500,000	1,196	BICSA
San Alejo	2.117	5,468,984	6,204	LAFISE
Borja Letona	0.350	1,015,053	2,238	BANDESAL
Peña Flor	0.598	2,018,817	1,843	IMV
Club Campestre	0.064	181,222	52	BAC San José
Florex	0.032	75,000	49	BAC San José
Na Lakalú	0.187	410,000	37	IMV, PROMERICA
Miraflores	0.895	2,083,000	2,512	Banco Industrial
Los Patos	5.000	12,000,000	17,367	FIDOSA - BANRURAL
San Rafael	4.200	15,411,600	13,398	G&T
<b>TOTAL</b>	<b>49.062</b>	<b>139,362,100</b>	<b>164,123</b>	

Another indicator of the great awareness raising that ARECA has been able to generate from project developers, IFIs and other institutions with an interest in SMREPs are the 76 contracts that have been signed with different institutions including 36 contracts with IFIs for the granting of PRG in the different countries across the region as detailed in the following table.

Table 3IFIs with signed contracts still in force

Country	IFI name	Signed contract in force
GUAT	BANCO INDUSTRIAL S.A.	Yes
GUAT	FINANCIERA DE OCCIDENTE S.A.	Yes
		Yes
GUAT	BANRURAL S.A.	Yes
GUAT	BANCO AGROMERCANTIL S.A.	Yes
GUAT	BANTRAB	Yes
ES	BANCO DE AMERICA CENTRAL	Yes
ES	BANCO G&T CONTINENTAL - EL SALVADOR	Yes
ES	CC DE AGUILARES S.C.DE R.L. DE C.V.	Yes

ES	CC DE NUEVA CONCEPCION	Yes
HON	BANAPIS	Yes
HON	BANCO LAFISE	Yes
CR *	BAC SAN JOSÉ	Yes
CR *	BANCO PROMERICA	Yes
PAN	BICSA (Costa Rica-Panamá)	Yes

\*Initially 20 contracts have been signed with IFIs in Costa Rica: However, per recommendation of the department of Strategic Programmes and Acquisitions (i.e., PREA for its abbreviation in Spanish – *Jefatura de Programas Estratégicos y Adquisiciones*) to await for the strengthening of the ARECA programme, only 2 contracts are still in force.

- **PRG mechanism is operational and so far nine SMREPs have been granted PRGs** resulting in over US\$ 25 million of new investments as shown below, while another two PRG requests have been submitted in December 2015 and are being evaluated as detailed in the next tables. The PRG fund is still in the process of being transferred to CABEL. The PRG fund will have to continue to operate beyond the Project duration, as the guarantee period<sup>5</sup> may be renewed annually during the term of the loan for a maximum of 10 years, hence there is a critical need to make a decision to attain an effective transfer of the PRG fund to CABEL. . In the future, some project developers and IFIs may decide for an early termination as the project risks are likely to decrease substantially once a project is in operation and begins to prove its viability. This should allow for the granting of additional PRGs once the PRG fund is fully committed.

Given the 100% success rate of the PRG program (no guarantees have been executed so far), the feasibility of increasing the current leverage ratio of 3:1 of the PRG fund should be examined and thus increase the number of PRGs that can be granted beyond the present limit. As stated in the PRODOC, the operational rules for the remaining funds will have to be agreed between UNDP and CABEL before Project termination together with the evaluation of a proposal to ensure the continuity of the PRG program. This action needs to be taken immediately since ARECA has succeeded in generating an important pipeline of SMREPs with an interest in obtaining PRGs to reach financing closing which should be looked after soonest.

Table 4 PRG granted to SMREPs by ARECA

Country	Year	IFI	Project	Technology	In force	Installed Capacity (MW)	PRG Amount ( US\$)
HN	2012	Banco Atlántida	Zinguizapa	Hydro	No	2.9750	1,000,000
HN	2013	Banco LAFISE	San Alejo	Hydro	Yes	2.1170	1,000,000
CR	2014	Banco BAC San José	Club Campestre	Thermal solar	Yes	0.0630	135,000
GT	2014	Banco Financiera de Occidente (FIDOSA)	Peña Flor	Hydro	Yes	0.5980	669,000
CR	2014	Banco BAC San José	Flores	Solar	Yes	0.0320	56,250

<sup>5</sup> PRG are granted for 1 year but could be renewed annually while the loan remains active for up to 10 years.

CR	2014	Banco Promérica	Na Lakalu	Solar	Yes	0.187 0	307,500
HN	2012	Banpaís	Quilio	Hydro	Yes	1.300 0	865,000
CR	2015	Banco BAC San José	JORCASA	PV	Yes	0.007 3	12,750
CR	2015	Banco BAC San José	MENA	PV	Yes	0.010 5	15,375
Total							4,287,360

Table 5PRG requests under evaluation

Country	Year	IFI	Project	Technology	In force	Installe d Capacity (MW)	PRG Amount ( US\$)
GT	2016	FIDOSA BANRURAL	Los Patos	Hydro	Not yet	5.000	1,000,000
GT	2016			Biomass	Not yet	.700	725,000
GT	2016	BANRURAL	San Luis	Hydro	Not yet	2.095	1,000,000
Total							2,725,000

Table 6 PRGs under revision

Country	Year	IFI	Project	Technology	In force	Installe d Capacity (MW)	PRG Amount ( US\$)
GT	2016	BI	Las Flores	Hydro	Not yet	0.600	655,000
Total							655,000

- **CABEI has provided TA funding for pre-investment studies way in excess of the US\$600,000 which have been targeted initially.** As shown in the following table, three projects have received pre-investment funding from CABEI with FONTEC<sup>66</sup> resources as part of its original commitment to provide US\$ 600,000 in assistance for SMREP feasibility studies for a total of close to US\$ 1 million.

Table 7 Pre-investment funding provided by CABEI

Project	Country	Amount
Small hydro Los Patos	Guatemala	217,000
Small hydro Puringla & Saguaza	Honduras	315,000
Expansion of the Los Santos windfarm (7-9MW)	Costa Rica	455,915
Total		987,915

- **The TA fund has proved instrumental in supporting SMREPs financings.** As a result of a recommendation made by the MTR, ARECA has so far granted 13 TA grants since the

<sup>66</sup> FONTEC - Spanish Consulting Fund

establishment of the new TA fund to support those RE projects which are close to reach financial closing,. CABEL should consider increasing the amount of funds destined for TA by committing additional funds of its own and /or by mobilizing additional funds from other donors.

Table 8 TA funding provided by ARECA

Beneficiary	Approval date	Project	Technology	Installed Capacity (MW)	Investment Cost (US\$)	Amount of Technical Assistance (US\$)
Empresa Castor S.A.	09/12/2013	El Molo	Hydro	3.90	13,168,508.82	80,000.00
Empresa Generadora de Energía Santiago (EGESA)	09/12/2013	Santiago	Hydro	2.50	7,275,000.00	80,000.00
Empresa Proveedora de Energía Renovable "Peña Flor", S.A.	10/08/2014	Peña Flor	Hydro	0.60	2,018,816.72	66,293.00
Alcaldía Municipal de Nacaome	31/10/2014	RE Development, Las Labranzas y Rincón El Ocotillo	Community PVo	0.00694	89,023.00	80,000.00
Empresa Agrícola La Entrada	31/10/2014	Los Patos	Hydro	5.00	12,400,000.00	80,000.00
Alcaldía Municipal de Namasigüe	31/10/2014	RE Development, Portillo del Guácimo	Community PV	0.00691	89,023.00	80,000.00
Mancomunidad de los Municipios del Sur (NASMAR)	22/01/2015	RE Development Renovables en la Comunidad de Santa Catarina	Community Solar	0.00745	99,023.00	80,000.00
Terminales Santa María S.A.	22/01/2015	Final design and financial closing of solar FV TSM project	Solar	0.79000	1,045,000.00	27,500.00
Río Blanco Energy, S.A. de C.V.	13/05/2015	Río Blanco, Los Puentes	Hydro	1.483	4,346,066.11	80,000.00
Hidroeléctrica Carmen Amalia, S.A	28/04/2015	Carmen Amalia	Hydro	0.600	1,700,000.00	79,192.00
Comunidad Pech	22/06/2015	RE development for the Pech Community at Culmí Municipality	N/D	n.a.	n.a.	10,000.00

Energías Renovables AMLO S.A.	19/10/2015	La Ceiba	Hydro	1.00	1,676,957.00	73,250.00
Compañía Fuerza de Occidente (COFUSA S.A. de C.V.)	29/10/2015	Quilio (construction of 630 m <sup>3</sup> retaining wall for power house and substation)	Hydro	1.30	n.a.	80,000.00

- **ARECA has succeeded in getting CABEL and other funding sources to finance pre-feasibility studies of SMREPs.** The absence of good quality feasibility studies in which lenders can rely to evaluate the financial viability of SMREPs has traditionally been one of the key impediments to SMREPs success. ARECA has been instrumental in getting CABEL plus other funds which CABEL has mobilized as part of its normal business operations to contribute over US\$ 1.4 million for the conduct of 21 feasibility studies for a wide variety of SMREPs in the region, as detailed in the following table.

Table 9 SMREP feasibility studies funded by CABEL and other funding sources

Number of Studies	Project / Country	Country	Feasibility Study Cost (US\$)	Source of Funds
1	PH Puringla y Sazagua	Honduras	315,000	CABEL / FEC
1	PH Los Patitos	Guatemala	217,000	CABEL / FONTEC
1	PE Coopesantos	Costa Rica	455,915	CABEL / FONTEC
1	PH Peña Flor	Guatemala	50,000	CABEL / IMV
1	PB Ingenio Cutris	Costa Rica	50,000	CABEL / IMV
1	PB Avicola Rio Amarilo	Honduras	35,000	CABEL / IMV
1	PV Agrocampestre	El Salvador	49,660	CABEL / IMV
2	PH San Martín	Nicaragua	50,000	CABEL / IMV
1	PV Mangosa	Nicaragua	49,500	CABEL / IMV
1	PH Huiza	El Salvador	50,000	CABEL / IMV
1	PB Los Nacientes	Costa Rica	50,000	CABEL / IMV
1	PH Don Alcides	Costa Rica	50,000	CABEL / IMV
5	PH Chuteca	El Salvador	50,000	CABEL / IMV
3	El Arreo, Sigma, Mundimar	Costa Rica	0	AEA
1	PB Porcina Americana	Costa Rica	0	GIZ
<b>22</b>	<b>TOTAL</b>		<b>1,472,071</b>	

- **CABEL has succeeded in mobilizing an additional € 2 million for ARECA from the Finnish Government through its Ministry of Foreign Affairs to re-capitalize the PRG fund.** Also negotiations have been held with the Swedish International Development Agency (SIDA) to consider its participation in the re-capitalization of the PRG fund with no results to date.
- **Extensive training has been provided to CABEL and IFIs personnel on how to identify, evaluate and finance SMREPs, as well as, on the implementation of the PRG mechanism.** Since its inception, ARECA has managed to train more than 700 professionals from CABEL's

head and country offices and IFIs through the conduct of specialized seminars, workshops and training programs held in the different countries of the region.

- **More than 5,500 developers, investors, RE consultants IFI officials and NGO representatives have attended seminars, workshops and training sessions.** Since its inception, ARECA has actively supported developers, investors, RE consultants IFI officials and NGO representatives to move forward with the design, development and financial structuring of SMREPs in the region. In the following table are some examples of ARECA's participation in training sessions and events during the first semester of 2015.

Table 10 Examples of ARECA's participation in training seminars and aware raising events

Country / Date	Institutions	Description of Workshops/Training and Events
<b>Honduras January 30, 2015</b>	Italian Embassy/Students of the University of Rome	Presentation on Renewable Energy in Central America.
<b>Costa Rica March 4-5, 2015</b>	Ministry of Environment and Energy (MINAE)	Participation with stand in EXPOEFICIENCIA: ENERGY AND ENVIRONMENT, developed in the Antigua Aduana Costa Rica. Had more than 4,000 attendees.
<b>Costa Rica March 6, 2015</b>	Distribuidora FLOREX Centroamericana	Opening Ceremony of the PV Florex. The event was attended by the President of Costa Rica, Mr. Luis Guillermo and the Vice- Minister of Environment, Ms. Irene Cañas.
<b>Costa Rica March 6, 2015</b>	Industria de Muebles Na Lakalu	Open Ceremony of the PV Na Lakalú, financed by PROMERICA Bank.
<b>Costa Rica March 12, 2015</b>	Chamber of Industry of Costa Rica (ICRC)	Presentation at the Congress of Biomass. Had more than 150 participants.
<b>Costa Rica April 15, 2015</b>	Costa Rican Association of Power Producers (ACOPE)	ARECA sponsored and co-organized the "II Seminar on Development and Utilization of Solar Photovoltaic Energy in Costa Rica"
<b>Honduras April 30, 2015</b>	Honduran Association of Renewable Energy Producers (AHPER)	Co-organizer of Workshop on Institutionalization of Gender and Energy Network in Honduras. 18 attendees.
<b>Honduras May 14, 2015</b>	IEEE Progra4GIZ,	Sponsor of workshop on "Intelligent Distribution Networks (Smart Grids): Concepts and Implementation in the European Context"
<b>Costa Rica May 18, 2015</b>	Industrial Chamber of Costa Rica (ICRC)	Sponsorship and dissertation at the opening session of the " <i>Diplomado de Administrador de Energía</i> " with the participation of 30 graduate students
<b>Honduras May 26-27, 2015</b>	Honduran Association of Renewable Energy Producers (AHPER), and the Spanish Photovoltaic Union (UNEF)	Speaker at the conference "The Integration of Photovoltaic Technology in the Electric Network of Honduras". 81 attendees
<b>Costa Rica June 4-6, 2015</b>	Ministry of Environment and Energy (MINAE) and the National Parks Foundation	Sponsor Environment Fair. ARECA participated with a Stand where attendees were provided financing options for RE and EE projects
<b>Honduras June 19, 2015</b>	School of Agriculture Zamorano	Climate Change and Energy Markets. 16 participants have been trained

- **A wealth of information has been developed with more than 20 market analysis, manuals and other documents with detailed information regarding regulations and project development, as well as, extensive promotion materials.** The dissemination of this information has proved highly beneficial to both SMREP project developers and officers of IFIs in keeping abreast of RE regulatory and policy situation in each of the countries and in increasing their capacities on issues related to project evaluation, project

financing structures, risk assessment and mitigation options and the preparation of project information memorandums based of best practices. All of these information has been put at the disposal of the public via the ARECA website ([www.proyectoareca.org](http://www.proyectoareca.org)) which also has copies of all the presentations that have been made at forums, seminars and training sessions over the years for download. The Project website has had more than 15,000 visits with over 150,000 hits or internal clicks and the 20 market studies elaborated by ARECA have experienced more than 68,000 downloads.

Overall, ARECA has had a clear impact in addressing policy, capacity, market and technical barriers and the PRG mechanism has been successful at leveraging additional financing for SMREPs. The Project has also succeeded in training the private banking sector in the evaluation and structuring of SMREPs across the region, as well as, in mobilizing additional resources from international donors to augment the size of the PRG and TA funds. Finally, ARECA has succeeded in providing TA to indigenous communities that do not have access to electricity to install off-grid RE systems for productive uses that will generate income and social benefits to the population

### 3.1.2 Logical Framework Analysis and Results

The analysis of the Logical Framework and Results is presented in the next table.

Table 11 Logical Framework Analysis and Results

Indicator assessment code

Green: completed, indicator shows successful achievement
Yellow: indicator shows expected completion by the end of the project
Red: indicator shows poor achievement – unlikely to be completed by project closure

Project Strategy	Objectively verifiable indicators					
Goal	Greenhouse gas emissions reduced in the Central American Region through accelerated investment in renewable energy projects (under 10 MW) to replace energy sector investments based on fossil fuel					
Objective, Outcomes and Outputs	Performance Indicator	Baseline	Target	End of Project Status	TE Comments	Rating
<b>Objective of the project:</b>  To remove the main financial, capacity and project development barriers and to catalyze investment in small/medium scale RE projects (SMREPs under 10 MW) in Central America	Number and generation capacity of RE Projects financed by CABEL by end of project	Minimal financing is channeled by CABEL and its IFIs to SMREPs	Financing for 30-40 MW of SMREPs committed by CABEL and its IFIs, in the form of at least 12 SMREPs	52 MW of SMERPs have been financed by CABEL and its IFIs in the form of 22 projects totaling over US\$ 144 million of investments	After a slow start up period ARECA improved its performance substantially with the implementation of the MTR recommendations and the hiring of the actual Coordinator As a result, ARECA has succeeded in surpassing almost all of its end-of-Project goals. Most importantly ARECA has been able to strike an	HS
	Installed capacity of RE in MW by end of project		At least 10MW installed and operating by the end of the project.	18 SMREPS with a total installed capacity of 38 MW are being built or in operation		

	Amount of funding leveraged by PRG mechanism	No financing mechanisms in place .	The \$5 million partial risk guarantee (PRG) mechanism has been used to leverage at least US\$80 million for SMREP development.	12 PRG have been issued of which 11 are still in force with a direct leveraging over US\$ 21 million for SMREP development In all, CABEL and its IFIs have catalyzed investments in SMREPs under 10MW of over US\$ 144 million with an estimated reduction of CO <sub>2</sub> emissions of 167,931 tons per year	objective balance in providing technical assistance to project developers and IFIs while granting access to the PRG mechanism which has proved instrumental in accelerating the development of SMREPs across the region. The PRG program is in the process of being transferred to CABEL Special consideration should be taken to ensure that the pipeline of projects that are still under negotiations with CABEL and its relationships with IFIs for the approval of PRGs and close of financing are not affected during the handover process. It is critical that the CABEL team that will take over the execution of the PRG program and the Technical Assistance fund should work alongside the current ARECA team during the next 4 to 6 months to ensure a smooth and effective transition	
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Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
<b>Outcome 1:</b> CABEI assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	CABEI is perceived as a leading institution for the development of SMREPs	CABEI is not involved in SMREP market.	CABEI has a strategy and a partnership with a local IFI in each member country to develop SMREPs.			HS
<b>Output 1.1</b>						
Internal strategy, policy and/or procedures, and structure established within CABEI to support the financing of SMREPs in the region	Financing SMREPs has been fully mainstreamed in CABEI's energy sector strategy; unit supporting SMREP financing exists; staff are aware of policies/procedures	CABEI not involved in financing SMREPs.	Active pipeline and portfolio of SMREPs in CABEI by end of year 3	CABEI has developed a comprehensive strategy with sounding policies and procedures to promote the development of SMREPs	Given the complexity of the CABEI organization, the development and approval of the internal procedures and operation manuals that are now in place have taken much longer than anticipated. This together with the shortcomings in establishing the ARECA management team have been responsible for the delays experienced in the start-up of the Project. The Project started in May 2007 and it took until May 2012 to sign up the first PRG contract.	HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
<b>Output 1.2</b>						
Regional renewable energy market analyzed on an ongoing basis	Regional energy market characteristics (policy, pricing, taxes) available to CABI and IFI staff on an ongoing basis.	Little consolidated information available on the SMRE market on an ongoing basis.	Review of policy and regulatory frameworks on each country is available.	Since its inception ARECA has prepared over 20 market evaluations across the region including an assessment of the RE market trends and current opportunities and an analysis of the policy and regulatory frameworks for each of the countries in the region.	The results of these evaluations have been presented in a series of workshops in different countries and made available to the general public via the Project website. All of the project developers that were interviewed during the TE mission highlighted the benefit of having access to such detailed and updated market information. CABI should continue to update such wealth of information which has proved to be instrumental to small and medium RE developers that do not have the means to	HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
					generate such detailed information on their own	
<b>Output 1.3</b>						
Formalized synergies established among available and future financial institutions and instruments relevant for financing of SMREPs on a project finance basis	Simplified documentation relating to small-scale renewable energy identifying all equity, loan, concessional loans and guarantees and publication of periodic reviews for benefit of RE project sponsors	No document available outlining available RE financing and related instruments	Document relating to SMREPs identifying all equity, loan, concessional loans and guarantee is elaborated and widely disseminated by end of project year 1. Updated as necessary.	First edition of the procedures manual for granting PRGs was issued in early 2009 and been subject to continues updates	ARECA has triggered great interest from regional commercial banks in financing SMREPs. Local IFIs with limited experience in SMREPs are now able to conduct project finance assessments on such initiatives. A total of 76 partnership agreements have been signed with diverse organizations including 37 agreements to provide PRG with IFIs across the region	HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
	Periodic meetings between CABEI and IFIs to develop synergies in relation to SMRE project finance.	No active review within CABEI and partner IFIs on financing and related instruments available for RE	At least one annual workshop with CABEI and participating IFIs focused on small scale renewable energy project financing	Periodic meetings between CABEI and IFIs have been held regularly to exchange knowledge on market information, financing techniques, and lessons learned and make necessary changes to the PRG program and the Technical Assistance Fund	<p>Among the institutional synergies that ARECA has developed to promote the financing of SMREPs are:</p> <ul style="list-style-type: none"> <li>▪ Renewable Energy Federation for Central America and the Caribbean (FERCCA),</li> <li>▪ Costa Rican Association of Power Producers (ACOPE),</li> <li>▪ Association of Renewable Energy Generators (AGER) in Guatemala,</li> <li>▪ Nicaraguan Association of Promoters and Producers of Renewable Energy (ANPPER)</li> <li>▪ Nicaraguan Association of Renewable Energy,</li> <li>▪ Honduran Association of Small Producers of Renewable Energy (AHPER),</li> <li>▪ Panamanian Association of</li> </ul>	

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
					<p>Renewable Energy Producers (APPER) and</p> <ul style="list-style-type: none"> <li>▪ Salvadoran Association of Renewable Energy (ASER) as a strategic alliance and</li> <li>▪ Salvadoran Association of Industrialists (ASI).</li> </ul> <p>Is important to mention that ARECA was instrumental in the formal establishment of ANPPER and ASER.</p>	
<b>Outcome 2:</b>						
CABEI and IFIs have developed the capacity (technical and financial) to finance SMREPs	CABEI (Headquarters and Country Offices) and IFI's are identifying and evaluating SMREPs	No specific focus on, and support for, SMRE in lending portfolio within CABEI and regional IFIs	Evaluations of SMREP projects are conducted by CABEI's country office and partner IFIs in each member country.			S

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
<b>Output 2.1</b>						
In-house capacity developed in CABI Head Office, Country Offices and IFIs to identify/evaluate/finance SMREPs and implement the PRG	Seminars and training sessions on RE project financing offered	No training available	Trained and specialized human resources are in place in CABI Head Office, Country Offices, and Partner IFIs to assess SMRE projects (80 to 100 individuals)	Special capacity building seminars have been held for the benefit of over 700 representatives of IFIs and CABI personnel. In addition, ARECA has been performing training workshops and monitoring projects that are in the process of obtaining financing from the 37 IFIs with which ARECA has signed agreements for granting PRGs.	The consultancy on the Identification of RE project risks and the development of a monitoring plan for the SMREPs prove to be instrumental in getting representatives of IFIs and CABI personnel to better understand the various risks of the SMREPs and to appreciate the importance of closely monitoring both projects and market conditions in order to make the necessary changes to the PRG program over time.	S
<b>Output 2.2</b>						
Increase awareness of SMREP financing (including PRG) opportunities and modalities among all relevant stakeholders, including RE project developers in particular	Awareness among IFIs regarding CABI's RE financing strategy.	No information on RE financing or consolidated training materials (including use of PRG) and opportunities available to increase	Training sessions on business planning and RE project financing offered. Workshops to disseminate financing modalities and train stakeholders	The inception Workshop took place in Nov 2007. Since then, ARECA has organized over 80 workshops and forums with the presence of over 4,000 project developers, investors, and representatives of	ARECA has made a strong impact in addressing policy, capacity, market, and technical barriers to promote the development of SMREPs in the region. The numerous workshops and forums on the state of the RE market, and best practices for the	HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
		awareness and overall capacity to ultimately finance SMREPs	on project development, business planning, utilization of PRG, and banking proposal preparation. At least one training event in each country (30 participants) for project developers, NGOs, and potential investors over the project lifetime	NGOS in all of the countries of the region	structuring and financing of SMREPs have been instrumental in increasing awareness of and developing strong relationships with project developers, investors and representatives of NGOs across the region. Most of the SMREPs that are part of the ARECA pipeline became aware of the ARECA program as a result of these workshops and forums.	

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
	Availability of promotional material	No consolidated information available	Promotional materials prepared and disseminated	All of the promotional material, market studies and the results achieved by the Project are available at the Project website for access by interested parties	The ARECA website has posted over 15,000 visits making over 150,000 clicks and with the download of more than 68,000 documents. As part of its presence in the social networks, ARECA has more than 170 likes on Facebook and has accumulated over 380 followers on Facebook and Twitter which proves the high visibility and interest that ARECA has managed to generate	
<b>Output 2.3</b>						
Feasibility work funded through CABI and other pre-feasibility funding sources€	Internal guidance available regarding feasibility funding, including the option of receiving TA funding from CABI on a reimbursable loan basis	Few RE projects receiving TA for feasibility work	Feasibility studies for at least 10 to 15 projects have been prepared by the end of the project.	ARECA has succeeded in getting CABI in association with other donors to contribute over US\$ 1.4 million to undertake more than 20 feasibility studies. In addition, with the establishment of the Technical Assistance Fund ARECA has supported design and final studies for 13	The initial US\$ 6000,000 allocated to the TA fund were used to finance only 2 projects even though the PRODOC call for allocating these funds over 10 to 15 projects. Consequently, the MTR recommended to increase the capitalization of the TA Fund from US\$ 600,000 to US\$ 1.5 million. To be used to fund final design and feasibility	S

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
				projects. However, the first tranche of the TA fund (US\$600,000) were destined to evaluate the feasibility of only 2 projects. This was corrected with the implementation of the MTR which put a cap of US\$80,000 per feasibility study.	studies. In addition, the Technical Assistance Fund has been utilized to eradicate energy poverty by investing in off-grid RE generation and thus contribute to the economic and social development of isolated communities and the improvement of the quality of life with employment generation through productive activities as a result of the RE generation.	
<b>Outcome 3:</b>					<b>D</b>	
SMREPs receiving financing through the Partial Risk Guarantee Facility and other innovative financing mechanisms	Number of loans through PRG to SMREPs approved by CABI and IFIs	Number of loans for SMREPs is small, and none make use of a Guarantee Fund	10 - 20 loans approved to SMREPs by end of project			HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
	Reduced collateral requirements by IFIs for SMREPs	Collateral requirements of up to 150% of debt value	Collateral requirements and/or financing terms and conditions significantly improved for SMREPs			
<b>Output 3.1</b>						
Partial Risk Guarantee (PRG) mechanism established and operational	PRG mechanism is established and operational within CABEL, including all required supporting documentation prepared and disseminated for PRG	No guarantee instrument available for RE projects.	RE Guarantee Fund is established within CABEL during the first year of project	PRG program is operational Legal and contractual documentation relating to PRG and associated financing has been prepared and updated periodically to reflect changes in technology, market and / or financing conditions.	Given the 100% success rate of the PRG fund (no guarantee has been called so far) the leverage ratio of the PRCG fund might be increased and in this manner extend the amount of coverage that could be offered to SMREPs without having to increase the capitalization of the fund. Also, consideration should be given to apply additional funds to the Technical Assistance Program since it has been an extremely successful component of the ARECA program.	HS
			Loan guarantee operational manuals issued, cleared and disseminated	Standard loan guarantee forms, procedures and operational manual for RE projects have been developed and have been modified and		

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
				improved to reflect changes in the RE market and incorporate lessons learned		
			IFIs familiar with Guarantee program and make use of available documentation appropriately.	A total of 37 agreements have been signed with IFIs for granting PRG. This is a direct reflection of the high degree of success that the PRG program has accomplished in filling the gap that has been preventing several SMREPs to reach financial closing. A great majority of the IFIs that have signed PRG agreements have not been involved in the financing of SMREPS in the past.		
Output 3.2						s

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
SMREPs identified, evaluated, and/or financed	RE projects identified, evaluated and/or financed.  PRG mechanism accessed.  Investments triggered.	Few RE projects financed, and none making use of a Guarantee Fund	5-10 projects financed by PRGM by end of year 3. PRG mechanism triggered approximately US\$ 80 M in investment in SMREPs by end of project	On a cumulative basis, ARECA has supported the financing of 9 SMREPs and triggered over US\$ 144 million of investments in SMREPs while there is a pipeline of 17 other SMREPs which have expressed interest in the PRG mechanism	ARECA has been successful in supporting the development of SMREPs by offering technical assistance to IFIs and project developers and granting access to the PRG mechanism. In addition to helping surmount financial barriers to the private sector, ARECA has also ventured into supporting project development and offering its guarantees to community led projects which represent a major challenge for the achievement of rural electrification and sustainable development goals	HS
<b>Output 3.3</b>						
Replication and exit strategy implemented	CABEL's success in attracting other investors	N/A	From year 4, interested parties approach CABEL with concrete proposal for recapitalization	ARECA has succeeded in obtaining additional funding from the government of Finland with the signing in 2009 of the Trust Fund	The PRG fund is still in the process of being transferred to CABEL. The PRG fund will have to continue to operate beyond the Project	

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
			amounting to around US \$1 5 million. Agreement signed by project end.	Agreement between the Ministry of Foreign Affairs of Finland and CABI for an initial amount of € 1 million which have been used to further capitalize the PRG fund.	duration, as the guarantee period extends to up to 10 years of financing, hence the critical need to make a decision to attain an effective transfer of the PRG fund to CABI. Many stakeholders and IFIs are likely to opt for early termination of the PRG once the project is built and the level of risk decreases significantly. Consequently, this should help extending the capacity of the PRG fund to providing PRGs to other SMREPs over time.	S
<b>Outcome 4:</b>						
Evaluating, learning and adaptive management are ensured	The Project applies lessons learned and adapts to the changing environment, thereby achieving its objective	N/A	Project on schedule, meeting objective and targets.			S
<b>Output 4.1</b>						

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
Comprehensive project impact monitoring and analysis system established	High-quality information available for the project manager, project team and key stakeholders for decision-making	N/A	Tracking and analysis of project implementation (reports and reviews).	<p>The monitoring of the project has been carried out successfully. Reports that are developed periodically include:</p> <ul style="list-style-type: none"> <li>▪ Project Annual Progress Reports</li> <li>▪ Project Implementation Reviews</li> <li>▪ Minutes of meetings of the Steering Committee</li> <li>▪ Presentations to the Steering Committee</li> <li>▪ Quarterly reports</li> </ul>	<p>High quality information has been made available to the project manager, project team and key stakeholders for decision making.</p> <p>Country specific annual performance reports have been prepared identifying reasons why IFIs and / or SMREP developers have not been utilizing the PRG mechanism in order to come up with recommendations to make changes / improvements to the PRG mechanism.</p> <p>M&amp;E regimes have been adequate to ensure sufficient feedback and learning.</p>	HS
	External evaluations and financial audits prepared	N/A	All evaluations and audits conducted on time.	<p>The MTR was conducted in mid-2011 and the Project has been subjected to annual internal audits and evaluations</p>	<p>Key recommendations of the MTR included:</p> <ul style="list-style-type: none"> <li>▪ To extend the duration of the Project until December 2013</li> </ul>	

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
					<ul style="list-style-type: none"> <li>▪ To integrate ARECA with the Mipymes Verdes initiative</li> <li>▪ To strengthen the partnership between UNDP and CABEI</li> <li>▪ To update the regional market analysis</li> <li>▪ To establish a fund for technical assistance to develop final designs of eligible projects (US\$500,000) and to establish a fund for Technical Assistance / Training (US\$300,000) to increase bank's technical capacity in the financial assessment process / technique SMREPs In this manner the amount of funds available for technical assistance to developers and IFIs was increased from the initial US\$ 600,000 to US\$ 1.5 million</li> </ul>	S
<b>Output 4.2</b>						

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
Adaptive management systems established to inform and adjust project implementation based on lessons learned from monitoring system	Bi-yearly revision of project Logical Framework and implementation strategy based on inputs from monitoring system. This project will adapt the financial instrument should this one not meet expectations.	N/A	A yearly (minimum) set of recommendations is issued and taken into account for adaptive management.	PSCC meetings have been held annually to assess the status of the Project and suggest changes to the logical framework and implementation strategy based on what has been learned from the monitoring system ARECA is a clear example of a good practice in collaboration between UNDP and development banks that has the potential to be replicated in other regions, or to be extended into a second phase in the Central American region where there is still ample potential for the implementation of SMREPs.	During its implementation ARECA has faced major challenges (i.e., 2008 financial crisis, political situation of Honduras, deficiencies in the viability of SMREPs in certain technologies etc.) but it has been able to overcome such barriers by taking appropriate corrective actions such as the modifications that have been made on the implementation of the PRG facility from 2012 onwards based on the effective adaptive management system that had been implemented	S
<b>Output 4.3</b>						

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
Regional information dissemination of project lessons and best practices for SMREP development and financing	Opportunities for stakeholders to learn about regional experience with SMREP development and financing	N/A	Material available on the project's website accessed by interested parties.	This indicator has been exceeded given the large amount and high quality of material that is available at the website and the high number of visits and document downloads that continue to increase over time.	ARECA has established an impressive and comprehensive web site enabling information to be viewed on-line. The website provides detailed information on the various products that are being offered by ARECA, the state of the RE markets in each of the countries and the different RE technologies that are been used, guidelines for developing SMREPs and analysis of regulatory frameworks for each of the countries of the region, together with an on line comprehensive course on the evaluation of RE projects, risk mitigation and financing modalities. The website also offers the opportunity to become part of a regional network of project developers, and technical consultants. The Project team should be complimented for their	HS

Outcomes and Outputs	Performance Indicator	Baseline	End of Project Target	End of Project Status	TE Comments	Rating
					efforts in achieving this beneficial project tool.	

### 3.1.2 Assumptions and Risks

Several of the risks considered at the Project outset have materialized and resulted in delays in the execution of the planned activities. The table below presents the key assumptions / risks which were identified during the preparation of the PRODOC and evaluates which risks have materialized and their impact on the Project implementation.

Table 12 Key Project assumptions / risks and mitigation actions

Assumption /Risk	Outcome
The institutional environment and sales prices of RE are favorable enough to enable the implementation of RE projects in a profitable manner and macro-economic conditions including high fossil fuel costs continue to favor the development of SMREPs in the region (including high fossil fuel costs)	Due to the international financial crisis of 2008, the price of oil underwent a significant decrease after the record peak of US\$ 145 in July 2008. On December 23, 2008, WTI crude oil spot price fell to US\$30.28 a barrel. The price sharply rebounded after the crisis and rose to US\$ 82 per barrel in 2009. For about three and half years the price largely remained in the US\$ 90–\$120 per barrel range and in the middle of 2014, the oil price started to fall due to a significant increase in oil production in USA, and declining demand in the emerging countries Spot prices for West Texas Intermediate (WTI) crude oil were down 53% in 2015 compared with 2014, averaging US\$ 49 per barrel for the year and continuing to fall. In early February 2016 the spot price of WTI was around US\$ 30- 32 per barrel. If sustained, this decrease in oil prices may have a negative impact on the sales prices of RE across the region affecting the financial feasibility of SMREPs
The PRG financial mechanism is designed to be able to work long after the project is finished	The PRGs have been designed to provide coverage for one year to be renewed annually for the term of the loan for a maximum period of 10 years
Interbank relations between CABEL and the IFIs continue to be sufficiently collaborative	This assumption prove to be right.
Technical and financial skills of some beneficiaries are so low that takes a long time to become sufficiently capacitated.  IFIs do not place the qualified personnel required to undertake more advance project analysis at the disposal of the Project to work closely with CABEL and the Project Coordinator – Project Finance Specialist	This risk materialized and consequently among others the MTR recommend: a) to extend the duration of the Project until December 2013, b) to establish a Technical Assistance Fund to develop final designs of eligible projects (US\$ 500,000) and to establish an additional fund for Technical Assistance / Training (US\$ 300,000) to increase CABELs technical capacity in the financial assessment process /technique of SMREPs. Also, an international consultant was hired to prepare a comprehensive study on “Project Evaluation, Risk

	Mitigation and Financing Methods for Renewable Energy Projects” which served as the basis for developing an on line course with learning modules and spreadsheets with programmed macros to perform evaluations of SMREPs. The activation of the E-System, a tool by which IFIs can submit PRG application to CABI on line was develop to facilitate the approval process of the PRGs. A Methodological Guide for Addressing Social Projects based on min hydro generation was also prepared
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In addition to these risks, some others that presented impediments to the timely implementation of the PRG mechanism were not clearly identified at the outset and had to be addressed via adaptive management. These are:

- **The difficulties associated with not having planned to establish a Project Team with sufficient resources to start up a regional program of the size of ARECA.** It was not up until May 2012 that with the hiring of the actual Project Coordinator and the determination to change the strategy for the granting of the PRGs that ARECA was able to take off as expected. Up until then outside consultants have been used for conducting workshops in the various countries to generate awareness and be able to identify potential PRG takers. From then onwards, the Project Team was directly responsible for organizing workshops and working alongside project developers to provide technical assistance and help them with the preparation of proposals. At the same time the facilitator that had been hired for Guatemala was changed by the current person in charge of Guatemala which was also instrumental in closing PRG agreements in that country.
- **The long time that it took to develop and obtain approval of the norms and procedures of the PRG mechanism within the CABI organization.** It took until March 2009 for the Department of Process Analysis to grant final approval of the Operating manual for the PRGs
- **The larger than expected disparity among the countries of the region in terms of experience on the development and implementation of SMREPs, the state of the regulatory frameworks and capacity of the IFIs to evaluate SMREPs.** Changes have to be made to adapt the PRG procedures to each of the countries and look for ways to keep the application process as simple as possible.

### *3.1.3 Lessons from other relevant projects*

In the PRODOC there are references to a number of related activities that have been carried out by UNDP-GEF in the region which have resulted in the identification of the key barriers to further development of RE based electricity generation and those that have focused on the creation and / or strengthening of technical capacities and validation of RE technologies, primarily as an option for rural electrification which have provided lessons for the design and implementation of the PRG mechanism. In particular, the most important projects where synergies could be sought included:

- **Central American Markets for Biodiversity (CAMbio) project**, a regional project which aims to support the mainstreaming of biodiversity conservation and sustainable use within small, micro- and medium-size enterprise (SMME) development and financing in five Central American countries and which is being coordinated by the Environmental and SMME focal points within the Development and Competitiveness Unit in CABEL, the same unit where ARECA is being coordinated through the energy focal point
- **Energy Efficiency Measures in the Honduran Industrial and Commercial Sector (PESIC)** which objective is to remove barriers to increased commercial use of energy efficiency measures and technologies
- **Caribbean Renewable Energy Development Program** whose financial component may provide synergies
- **Cleaner Production Program** whose financial assessment tools may be considered relevant

Lessons learned from these national and regional programs have been incorporated into the ARECA design which in turn has been able to complement these programs by providing the experiences related to the design and implementation of the innovative PRG mechanism to financing RE developments.

In the opinion of the Evaluator there is another relevant UN<sup>7</sup>DP/IADB / GEF project which ought to be able to provide lessons for the implementation of the ARECA entitled: “ Market Transformation for Energy Efficiency in Brazil” The relevance of this project to ARECA has to do with the fact that as part of the activities that have been planned to foster energy efficiency investments in the Brazilian commercial and public building sectors, the project has established an Energy Efficiency Guarantee mechanism designed to address and mitigate the performance risks aspects of ESCOs by offering performance and partial credit guarantees in order to stimulate banks to rely on the cash flow generated by sharing savings as collateral for loans to ESCOs and incentivize clients to enter into contracts with ESCOs. An effort should be made to share the experiences and lessons learned of these two projects due to the similarities of the two PRG mechanisms under implementation.

#### *3.1.4 Planned stakeholder participation*

During the preparation phase of the Project a large number of consultation processes took place with SMREP developers and technical consultants, IFIs, NGOs, government agencies, public utilities and other interested stakeholders across the region in order to identify and validate the key barriers that have been preventing SMREPs from reaching financial closing.

Throughout the implementation phase, ARECA has maintained close contact with all interested stakeholders through the large number of capacity building and training sessions that have been organized by the Project, as well as, its active participation in RE seminars both as a presenter and exhibitor across the region.

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<sup>7</sup> ESCOs Energy Services Companies

In addition, the PSC meetings have been attended by a diverse group of stakeholders including representatives of UNDP, CABI, Ministry of Environment, Central American Commission on Environment and Development (CCAD)<sup>8</sup>, RE associations, NGOs and public utilities.

### *3.1.5 Replication approach*

ARECA has been designed with a high replication approach in mind in order to succeed in facilitating the financing of the wide range of SMREPs across the region, facing different regulatory frameworks, diverse technologies and dissimilar energy market conditions.

In principle, the proposed replication approach seems reasonable. The Project started by targeting a small group of IFIs short listed with CABI with the idea of expanding coverage to other IFIs in the future. As part of Output 2.3, CABI had committed US\$ 6000,000 in assistance to SMREP feasibility studies with the intent that 10 to 15 projects will have benefited from this technical assistance at the end of year 5. This initial feasibility funding mechanism, through replenishment, was meant to allow for a larger number of SMREPs to gain access to financing beyond the end of the Project and, in addition, one of the Project tasks called for identifying possible sources for re-capitalization.

However, as the Project execution evolved several challenges arose which demanded special attention:

- A number of multi-stakeholders activities have been programmed to actively monitor the applicability of the ARECA program and identify potential changes that could be made to ensure that it would continue to meet the evolving needs of the SMREPs in each of the countries. However by the time that the MTR was undertaken in mid-2011, no PRGs have been signed and the initial TA funding mechanism had been fully used to fund only two feasibility studies<sup>9</sup> while none of these two projects was at the time ready to apply for a PRG.

As mentioned by the MTR evaluator, the TA funding mechanism that had been used to finance these two feasibility studies has not been designed specifically for the ARECA project but was part of the pre-investment funding mechanism that CABI had been using to develop a pipeline of projects with characteristics which were not always compatible with those of the SMREPs. In fact, access to these TA funds was subject to a series of demanding prerequisites and conditions which typical SMREPs were not in a position to meet and as a result only two large projects were eligible for TA funds.

- The PRG mechanism had been designed specifically to mitigate the barrier associated with the high level of guarantees that commercial banks had been demanding to provide financing to SMREPs. However, this tool by itself was not sufficient due to the presence of other important barriers which also required particular attention. In particular, most of the SMREPs had neither the technical capacity nor the financial resources to elaborate feasibility studies and / or final design with the level of detail that was needed

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• <sup>8</sup> The Central American Commission on Environment and Development (CCAD) is the organ of the Central American Integration System (SICA), which is responsible for the environmental agenda in Central America.

<sup>9</sup> US\$ 472,500 had been used to evaluate the feasibility of an agroforestry development with a biomass electricity generation plant and US\$ 315,000 had been allocated to the feasibility study of the Puringla and Sazagua hydro plant (approximately 8MW)

to reach financial closing. The MTR recommendation to recapitalize the TA fund<sup>10</sup> to develop feasibility studies and / or final designs of eligible SMREPs was instrumental in clearing the way for the granting of PRG to SMREPs and let these projects reach financing closing.

- At the time of the MTR it was observed that most of the IFIs were not in a position to evaluate the various risks associated with SMREPs and demanded additional capacity building and training. To take care of this issue an additional US\$ 300,000 TA /training fund was established.

As a result, several other changes were needed to ensure that through the combination of the PRGs and the TA funds accessible to SMREP developers and the additional training provided to the IFIs, ARECA was able to keep its high replication potential across the region. Among others, the following changes had to be implemented:

- The coverage of the PRG was increased as follows:
  - Up to 75% of the amount of the loan granted by the IFI for loans of less or equal to US\$ 500,00;
  - Up to 35% of the amount of the loan granted by the IFI for loans in excess of US\$ 500,000 plus a base amount of US\$ 200,000; and
  - In no event the amount of the PRG could exceed US\$ 1 million;
- IFIs were allowed to request approval of PRG eligibility prior to approval of funding by the IFI and to submit their applications for PRG in paper or on line via the ARECA website; and
- A US\$ 2.5 million fund was established to provide bridge loans to ease the granting of long term financing.

Currently, discussions are being held to evaluate the possibility of increasing the gearing ratio of the PRG fund. This will allow to provide a greater number of PRGs with the same amount of available funds in the guarantee account. The fact that none of the PRG that have been granted so far had been executed appears to indicate that it might be possible to increase the gearing ratio of the PRG fund. More detailed project risk studies should be undertaken to determine the appropriate level of the gearing ratio that should be used.

### *3.1.6 UNDP comparative advantage*

UNDP's comparative strength lies in providing its experience in integrating policy development, institutional strengthening and non-governmental and civil society participation while mobilizing GEF funding to assist in promoting, designing and undertaking activities and programs destined to support the implementation of SMREPs in the region.

Through its longstanding presence in the region, UNDP has developed effective partnerships with key relevant stakeholders and gained a good understanding of the needs and expectation of the different stakeholders regarding the type of barriers that have been impeding the development and financial closing of SMREPs in each of the countries across the region.

Another comparative advantage of UNDP is related to the fact that ARECA has been originated from a GEF PIF where UNDP acted as the GEF implementing partner plus the fact that UNDP has

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<sup>10</sup> In November 2011 the TA fund was recapitalized with an additional US\$1 million and a maximum of US\$ 80,000 per project (non-refundable) was established together with the TA operations manual specifically designed to SMREPs)

several other RE programs under execution in the region which are compatible with ARECA's objectives.

### *3.1.7 Linkages between the Project and other interventions within the sector*

ARECA has maintained a close linkage with the CAMbio project, another UNDP / GEF funded regional project which, as mentioned earlier, is being executed by the Development and Competitive Unit in CABEL, the same unit where ARECA is being coordinated.

The main objective of the CAMbio project<sup>11</sup> is to support the mainstreaming of biodiversity conservation and sustainable use within SMME development and financing in five Central American countries. In doing so, it aims at generating biodiversity benefits by encouraging transformed productive and service sector practices and related investments that can positively impact biodiversity including the implementation of SMREPs.

In many respects this project has great similarities with ARECA in the sense that it has been working with:

- IFIs across the region to develop and extend new financial products that would generate increased lending to SMMEs,
- SMMEs in partnership with a range of national and international providers of business and technical services to ensure that SMME investments are made efficiently and in a manner that maximizes economic, social and biodiversity / environmental benefits, and
- Governmental and inter-governmental institutions, to promote an enabling environment that will encourage SMME growth over the medium and long run.

As part of the linkages established with the Mipymes Initiative TAs for the following projects have been initiated:

- Hydroelectric project Comalpa, El Salvador
- Hydroelectric project Don Alcides, Costa Rica
- Biomass project Ingenio Cutris, Costa Rica
- Hydroelectric project San Martin, Nicaragua
- Photovoltaic project Los Coyotes, Honduras

Also in conjunction with the Mipymes Initiative, ARECA has evaluated the potential feasibility of installing PV projects in the roof of gasoline stations in association with the Chamber of Gasoline Stations of Costa Rica and two IFIs in that country (i.e., BAC San Jose and Promerica)

In addition to its close linkage with the Mipymes Initiative, ARECA has developed and maintained a close relationship with a number of organizations which are active in the RE sector across the region including:

- Ministries of Energy and Environment of countries across the region
- GIZ, the German Development Agency
- USAID/CCAD/CAFTA-DR Cooperation
- Energy and Environment Partners with Central America (EEP)
- Renewable Energy Federation for Central America and the Caribbean (FERCCA),
- Costa Rican Association of Power Producers (ACOPE),
- Association of Renewable Energy Generators (AGER) in Guatemala,

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<sup>11</sup> This project is also referred to as the "Mipymes Initiative"

- Nicaraguan Association of Promoters and Producers of Renewable Energy (ANPPER)
- Honduran Association of Small Producers of Renewable Energy (AHPER),
- Panamanian Association of Renewable Energy Producers (APPER) and
- Salvadoran Association of Renewable Energy (ASER) as a strategic alliance and
- Salvadoran Association of Industrialists (ASI).
- Guatemalan National Coffee Association (ANACAFE)
- BUN-CA Energy Network Foundation

In this regard, it is important to mention that ARECA was instrumental in the formal establishment of ANPPER and ASER.

### *3.1.8 Management arrangements*

#### *3.1.8.1 CABEL*

CABEL has acted as the Executing Agency while specifically delegating its responsibility to the Department of Development and Competitiveness which has been directly in charge of overseeing and coordinating all aspects of the Project.

#### *3.1.8.2 UNDP*

The UNDP Country Office in Honduras has been responsible for maintaining day-to-day oversight responsibility for Project implementation and has been directly responsible for fulfilling the duties and obligations of a GEF Implementation Agency. The UNDP's GEF Regional Coordination Unit (RCU) for Latin America and the Caribbean and in particular the Regional Coordinator for Climate Change has been responsible ensuring that the Project achieves its global environmental benefits.

#### *3.1.8.3 Project Coordination Unit*

For day to day operations, a Project Coordination Unit (PCU) has been established within CABEL's headquarters in Tegucigalpa within the Unit of Development and Competitiveness together with the Project Coordination Unit of the CAM-bio project. The PCU benefited from maintaining strong links with the Energy and Environment Focal Points who have assisted in linking the PCU to the rest of the CABEL organization.

The PRODOC suggested that the PCU will be staffed with a Project Coordinator and a Young Professional in charge of assisting both in the management and administration of the Project. As pointed out by the MTR Evaluator, the limited human resources assigned to the PCU prove to be inadequate to manage and administer a project like ARECA, designed to work in close contact with IFIs and SMREP developers across six countries of the region.

In addition, it took four months from the start of the Project to hire the first Project Coordinator and more than one year to have an assistant on board. The yearly contract of the first Project Coordinator was not renewed and the Project was without a Project Coordinator between October 2008 and April 2009 when a second Project Coordinator is finally engaged. The second Project Coordinator resigned in December 2011 and it was not until May 2012 that the third and actual Project Coordinator was put in charge (less than a month and a half after the Project managed to grant the first PRG). Fortunately, with the hiring of the actual Project Coordinator Project implementation took off exponentially assisted by the decision to place one assistant in Costa Rica and another one in Guatemala, in the CABEL's offices in those countries.

Having direct representation in those countries has proved instrumental in strengthening the relationships with IFIs and SMREP developers. In the opinion of the Evaluator, the decision to increase the size of the PCU should have been taken much earlier since it is very difficult to

develop efficient relationships with IFIs and SMREP developers at distance. In the future, CABEL should consider assigning a full time in country facilitator dedicated to help develop a pipeline of SMREPs and ensuring that IFIs are fully on board in each of the countries of the region assuming favorable regulatory and energy market conditions are in place for SMREP developers to consider working on the development of SMREPs.

The current Project Team has a thorough knowledge of the logic framework structure including a clear understanding of the scope of the activities, indicators and intended results and has taken a pro-active role in developing strong relationships with IFIs, and working closely with SMREP developers, as evidence by the positive feedback that the Evaluator received both from IFI representatives and SMREP developers during the face to face interviews.

#### *3.1.8.4 Project Steering Committee*

The Project implementation has been overseen by a Project Steering Committee (PSC) which includes representatives from UNDP, CABEL and CCAD, as well as, representatives from the Ministries of Environment and Energy of each participating countries. External experts and representatives from NGOs have also been invited to participate, as deemed appropriate. Attendees located in other countries have participated virtually.

PSCC meetings have been held annually to assess the status of the Project and to suggest changes to the logical framework and to the implementation strategy based on what has been learned from the monitoring system. The Project has been subject to annual monitoring initially conducted by an external consultant and more lately done by the Project team.

## **3.2 Project Implementation**

### *3.2.1 Adaptive management*

The Project has had to apply adaptive management techniques as a result of different problems and contingencies that have appeared throughout its implementation. The most important changes to the Project design and Project outputs that had to be implemented relate to the implementation of the recommendations of the MTR which was undertaken in mid-2011.

These changes (for more detail see section 3.2.3 below) have proven to be effective in getting the ARECA project back on track, providing additional evidence of the importance of conducting the MTR sooner rather than later. In the opinion of the Evaluator based on the poor performance of ARECA during the early years of implementation – which was already evident by the Project monitoring results - the MTR should have been undertaken one to two years earlier

The changes recommended by the MTR were articulated in writing and then swiftly discussed among representatives of the Honduras UNDP office and CABEL, the Regional UNDP/GEF coordinator for LAC and the ARECA Coordinator. All of the suggested recommendations were approved with the exception of hiring only one more ARECA facilitator to be based in Honduras (in addition to the one that has already been approved for Costa Rica earlier) rather than adding one facilitator in each of the countries of the region, as has been suggested by the MTR due to the absence of favorable regulatory and energy market conditions in El Salvador, Nicaragua and Panama.

It is important to note that even though the ARECA PRG financing mechanism has a high replication potential, adapting the PRG financing mechanism to a new country does take a long time given the dissimilarities of the tax, legal, and regulatory frameworks, permit and

environmental impact study requirements and energy market conditions from one country to another.

Also, during the implementation of the Project the need to conduct additional studies and make other changes to the Project design which were not specifically mentioned in the PRODOC were identified including:

- **Extension of the term of the PRG** (initially conceived to be for one year) to cover the term of the project loans The offer of a PRG that had to be renewed on an yearly basis prove not to be effective in eliminating / mitigating the financial barrier which it was intended to address;
- **Development of a Project Risk Matrix** to serve as the basis for the preparation and implementation of a Project Monitoring plan; and,
- **Development of a TA fund Manual** with the operating procedures and activities that will be developed by ARECA to allocate the financial resources of the TA fund that was created based on the recommendations of the MTR.

### *3.2.2 Partnership arrangements*

ARECA has been effective in promoting a variety of partnerships and alliances with a wide range of stakeholders such as public and private sector entities, NGOs and civil society organizations including indigenous groups in order to enable their further involvement for the project execution stage.

Since Project inception, ARECA has been an active supporter of project developers, investors and technical services companies to move forward with the negotiations and the development of SMREPs across the region. In addition to the establishment of the PRG mechanism and the creation of a TA fund to assist with pre-investment activities on a non-reimbursable basis, ARECA has organized numerous workshops and training sessions to assist both project developers and the IFIs to get them to understand the inherent risks of SMREPs, enhance the quality of the feasibility and other studies backing up each individual project, and evaluate the financial viability of the SMREPs.

As it has been mentioned in more detailed in section 3.1.7 Linkages between the Project and other interventions within the sector above, ARECA has also been successful in establishing linkages with a large number of NGOs, as well as, in providing technical assistance to indigenous communities to assist with the identification of off-grid renewable energy generation options and to support productive uses of electricity to help improve their quality of life

### *3.2.3 Feedback from M&E activities used for adaptive management*

Feedback from M&E activities have been properly used for adaptive management throughout.

During the PSC meeting held in November 2011 the feedback and recommendations of the MTR were discussed and the following changes have been approved:

- The Project end date was extended to December 2013;
- Approval was granted to move US\$ 800,000 from the PRG fund as follows:
  - US\$ 500,000 to the TA fund for final designs and other technical assistance services to be granted on a non-refundable basis and for an amount not to exceed US\$80,000 per project and with more flexible conditions than the TA fund that CABI had been using before the MTR was undertaken; and,

- US\$ 300,000 to be included in the project administration budget with the objective of covering possible deficits in the budget for 2012 and to hire additional experts to strengthened the capacities of the IFIs in supporting SMREPs;
- The development of an Operation Manual<sup>12</sup> for the application of the TA funds which among others detailed the type of activities which are eligible for TA funding.:
  - Pre-investment activities:**
    - Activities and studies oriented to the promotion of SMREPs in the region
    - Prefeasibility studies of SMREPs
    - Feasibility studies including the granting of permits and preparation of Environmental Impact Studies or any other consultancy that would be required to determine the final viability of SMREPs
    - Final designs of SMREPs
  - Technical assistance to initiatives including**
    - Pilot testing / plans for SMREPs
    - Development of grid connected or off-grid small RE projects for the benefit of a given community or initiative
    - SMREPs which may require to strengthen their technical capacities for construction and /or with a social approach; and,
- To hire an ARECA facilitator to be based in Guatemala in addition to the one that had already been stationed in Costa Rica earlier since the human resources that have been proposed for the PCU in the PRODOC were clearly insufficient to cover the strengthening of IFIs and providing the necessary support to SMREP developers in 6 countries across the region.

Subsequently, during the PSC meeting of November of 2012, the TA fund was increased by another US\$ 500,000 and again by another US\$ 500,000 during the PSC meeting of December 2013, whereby the total amount of resources allocated to the TA fund amounted to US\$1,500,000.

During the PSC meeting of December of 2013, the end date of the Project was extended until December of 2014 and during the PSC meeting of December 2014 it was extended again for another year until December 2015.

### 3.2.4 Project Finance

The following Project finance data has been collected from the ARECA MTR report, the ARECA Annual Project Report for 2014 and update with data for 2007 and 2015 obtained from the Project Team.

Table 13 Budget Execution

Period	Budget (US\$)	Amount Executed (US\$)	Percentage (%)
2008	309,899.00	128,598.00	41
2009	488,200.00	268,369.72	55
2010	782,100.00	423,110.00	54
2011	673,766.75	600,887.23	89

<sup>12</sup> The first version of the operation manual for the TA funds only addressed the preparation of design studies whereas the rest of the possible uses of TA funds were included in a later version.

2012	476,612.68	358,850.55	75
2013	407,864.00	325,496.98	80
2014	485,700.79	330,260.16	68.
2015	425,000	301,335	71
Total			

Table 14 GEF funds execution

Year	Component					Total
	1 (US\$)	2 (US\$)	3 (US\$)	4 (US\$)	5 (US\$)	
2007	0	0	5,200,000	5,875	23,206	5,229,081
2008	998	7,487	16,179	0	103,934	128,598
2009	69,192	37,531	4,527	12,718	145,196	269,163
2010	12,950	142,085	96,700	76,042	95,333	423,110
2011	28,575	163,842	176,213	121,135	111,489	601,253
2012	6,920	34,028	122,286	35,949	49,345	248,530
2013	0	0	0	0		0
2014	0	0	0	0		0
2015	0	0	0	0		0
2016	0	0	0	20,265		20,265
Total						6,920,000

Table 15 Co-financing execution

Co-financing type	CABEI	UNDP Honduras	Investors / IFIs	Total
Credits / Equity	58,318,700		124,944,431	183,263,131
Credits / Grants Pre-investment	987,915			987,915
In-kind	522,959	75,000		75,523
Other				0
Total				184,326,569

### 3.2.5 Monitoring and evaluation: design at entry and implementation

The Project monitoring and evaluation of ARECA has been designed according to UNDP and GEF procedures and will be provided by the Project Team and the UNDP Country Office (UNDP-CO) with support from UNDP-GEF, as shown in great detail in the PRODOC.

The key proposed M&E activities and their implementation are summarized in the following table:

Table 16 M&E Activities

M&E Activity	Responsible Party	Timing	Evaluation
Inception Workshop (IW) plus	Full project team including UNDP-CO,	Shortly after the Coordinator-RE	The IW was held on Nov 22-23, 2007 and

Inception Report (IR)	and representatives from UNDP-GEF Regional Coordinating Unit plus UNDP-GEF (HQs), as appropriate	Project Financing Specialist has been appointed	the IR has been prepared and distributed to key actors
Measurement of Project indicators and those related to global benefits.	Measurements will be taken through subcontracting	Has not been specified	In 2006 an international consultant was engaged to develop a project monitoring plan and to undertake the implementation of such plan between 2008 and 2012
Annual Project Report (APR)	Project Team, UNDP-CO and UNDP-GEF	Annually	Satisfactory done
Project Implementation Review (PIR)	Project Team, UNDP-CO and UNDP-GEF	Annually	Satisfactory done
Quarterly Progress Reports	Project Team	Quarterly	Satisfactory done
Financial and accounting statement	Project Team	Monthly	Satisfactory done
PSC meetings	PSC members	Annually	Satisfactory done
Periodic Thematic Reports	Project Team	Periodically	Satisfactory done
Technical Reports	Project Team	As deemed necessary	Satisfactory done
Financial audits	UNDP	Annually	Satisfactory done
Project Situation Report	Project Team	Annually for presentation to Finnish donors	Satisfactory done
In situ evaluation	Project Team, UNDP-CO and UNDP-GEF	Annually (second quarter)	Satisfactory done
Mid Term Review	Independent evaluator	At mid term	Conducted in mid-2011
Terminal Evaluation	Independent evaluator	At the end of the Project	In progress

The evaluator considers that there has been a systematic monitoring to the progress of activities in spite of the fact that, as expressed earlier, the MTR should have been undertaken earlier. The Project began in 2007 and the end date was originally set for 2012 and the MTR was conducted in mid- 2011 rather than at least one to three years earlier as it should have been.

The Monitoring and Evaluation of the Project is rated *Satisfactory (S)*.

### *3.2.6 UNDP and Implementing Partner implementation / execution coordination and operational issues*

ARECA is a clear example of a good practice of a successful collaboration between UNDP and development banks and has the potential to be extended into a second phase in the Central American region where there is still potential for the implementation of SMREPs and /or replicated in other regions.

In fact, both parties have benefited greatly as a result of their joint involvement in the ARECA project:

- CABEL has benefited from the long standing experience of UNDP in enhancing the capacity of policymakers to identify the right mix of public instruments to make investments in renewable energy projects financially attractive for the private sector, its close links to governments across the region and technical knowledge of SMREP technologies, their potential to reduce GHG emissions.

Over the last 20 years UNDP support and financing from GEF have resulted in the implementation of over 200 clean energy investments in close to 100 developing countries and involvement in a number of interventions to reduce the high financing costs of renewable energy by systematically identifying and addressing the underlying project risks to enhance project bankability and design climate change policies associated with the implementation of low carbon growth strategies including the design of NAMAs and climate change related instruments for the mobilization of private sector participation in addition to the identification and use of Official Development Assistance (ODA) and other specialized climate finance resources.

- In partnering with CABEL, UNDP has been able to gain direct access to CABELs regional network of IFIs while taking advantage of CABEL knowledge of the regional financial markets coupled with its skills and expertise in the design of project specific financial packages and its track record to act as a catalyst in the mobilization of funds from external sources.

Both UNDP and CABEL are experienced in handling regional programs and have implemented several GEF funded programs in the region. The quality of the implementation and the risk management techniques that have been used throughout the implementation process has been adequate.

The support that CABEL and the Project Team received from UNDP is considered acceptable in spite of the fact that the interaction of the different UNDP-CO with the Project team have varied across the region.

The Evaluator concludes that the partnership between UNDP and CABEL has been successful given the relevant and complementary skills and experiences that both organizations have brought to the table and the manner in which they have worked together in facilitating the implementation of the Project, especially after the hiring of the actual Project Coordinator and his team.

The implementation execution of the ARECA project is rated Satisfactory
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### 3.3 Project Results

#### 3.3.1 Overall results (attainment of objectives)

The Project has been designed to achieve four specific outcomes based on a number of outputs (as defined by the Logical Framework Matrix). By achieving the outcomes, the ARECA project was designed to remove the main financial, capacity and project development barriers which have been identified during the Project preparation phase and thus catalyze investment in SMREP across the region. Each Outcome is evaluated and an overall rating based on the following 6-level sliding scale is provided below.

Table 17 Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution

<b>6: Highly Satisfactory (HS)</b>	The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency
<b>5: Satisfactory (S)</b>	There were only minor shortcomings
<b>4: moderately Satisfactory (MS)</b>	There were moderate shortcomings
<b>3. moderately Unsatisfactory (MU)</b>	The project had significant shortcomings
<b>2. Unsatisfactory (U):</b>	There were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency
<b>1. Highly Unsatisfactory (HU):</b>	The project had severe shortcoming

The evaluation ratings for the project goal objective and outcomes based on the rating scales shown in the table above is presented in the following table

Table 18 Ratings for Project Goal, Objective and Components

<b>Objective / Outcome</b>	<b>Rating</b>
<b>Goal:</b> Greenhouse gas emissions reduced in the Central American Region through accelerated investment in renewable energy projects (under 10 MW) to replace energy sector investments based on fossil fuel	<b>HS</b>
<b>Objective:</b> To remove the main financial, capacity and project development barriers and to catalyze investments in SMREPs (under 10MW) in Central America	<b>HS</b>
<b>Outcome 1:</b> CABI assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	<b>HS</b>
<b>Outcome 2:</b> CABI and IFIs develop the capacity (technical and financial) to finance SMREPs	<b>S</b>
<b>Outcome 3:</b> SMREPs receive support through the Partial Risk Guarantee Facility and other innovative financing mechanisms	<b>HS</b>
<b>Outcome 4:</b> Evaluating, learning and adaptive management are ensured	<b>S</b>
<b>Overall Project</b>	<b>HS</b>

Results for each of the Outcomes / Outputs are summarized in the table below.

Table 19 Summary of Results

Objective /Outcome / Output	End of Project Target	End of Project Status
<b>Objective:</b> To remove the main financial, capacity and project development barriers and to catalyze investment in small/medium scale RE projects (SMREPs under 10 MW) in Central America	Financing for 30-40 MW of SMREPs committed by CABEL and its IFIs, in the form of at least 12 SMREPs	52 MW of SMERPs have been financed by CABEL and its IFIs in the form of 22 projects totaling over US\$ 144 million of investments
	At least 10MW installed and operating by the end of the project.	18 SMREPS with a total installed capacity of 38 MW are being built or in operation
	The \$5 million partial risk guarantee (PRG) mechanism has been used to leverage at least US\$80 million for SMREP development.	12 PRG have been issued of which 11 are still in force with a direct leveraging over US\$ 21 million for SMREP development In all, CABEL and its IFIs have catalyzed investments in SMREPs under 10MW of over US\$ 144 million with an estimated reduction of CO <sub>2</sub> emissions of 167,931 tons per year
<b>Outcome 1:</b>		
CABEL assumes a catalytic role in strategically promoting increased lending on a project finance basis to SMREPs	CABEL has a strategy and a partnership with a local IFI in each member country to develop SMREPs.	Achieved with the exception of Panama where projects will be financed through IFIs in Costa Rica until an agreement is achieved with local IFIs in Panama.
<b>Output 1.1</b>		
Internal strategy, policy and/or procedures, and structure established within CABEL to support the financing of SMREPs in the region	Active pipeline and portfolio of SMREPs in CABEL by end of year 3	CABEL has developed a comprehensive strategy with sounding policies and procedures to promote the development of SMREPs
<b>Output 1.2</b>		
Regional renewable energy market analyzed on an ongoing basis	Review of policy and regulatory frameworks on each country is available.	Since its inception ARECA has prepared over 20 market evaluations across the region including an assessment of the RE market trends and current opportunities and an analysis of the policy and regulatory frameworks for each of the countries in the region.

Output 1.3		
Formalized synergies established among available and future financial institutions and instruments relevant for financing of SMREPs on a project finance basis	Document relating to SMREPs identifying all equity, loan, concessional loans and guarantee is elaborated and widely disseminated by end of project year 1. Updated as necessary.	First edition of the procedures manual for granting PRGs was issued in early 2009 and been subject to continues updates
Outcome 2:		
CABEI and IFIs have developed the capacity (technical and financial) to finance SMREPs	Evaluations of SMREP projects are conducted by CABEI's country office and partner IFIs in each member country.	Achieved with the exception of Panama where no contract with local IFIs have been signed yet and the market conditions for the implementation of SMREPs are not ripe.
Output 2.1		
In-house capacity developed in CABEI Head Office, Country Offices and IFIs to identify/evaluate/finance SMREPs and implement the PRG	Trained and specialized human resources are in place in CABEI Head Office, Country Offices, and Partner IFIs to assess SMRE projects (80 to 100 individuals)	Special capacity building seminars have been held for the benefit of over 700 representatives of IFIs and CABEI personnel. In addition, ARECA has been performing training workshops and monitoring projects that are in the process of obtaining financing from the 37 IFIs with which ARECA has signed agreements for granting PRGs.
Output 2.2		
Increase awareness of SMREP financing (including PRG) opportunities and modalities among all relevant stakeholders, including RE project developers in particular	Training sessions on business planning and RE project financing offered. Workshops to disseminate financing modalities and train stakeholders on project development, business planning, utilization of PRG, and banking proposal preparation. At least one training event in each country (30 participants) for project developers, NGOs, and potential investors over the project lifetime	The inception Workshop took place in Nov 2007. Since then, ARECA has organized over 80 workshops and forums with the presence of over 4,000 project developers, investors, and representatives of NGOS in all of the countries of the region
	Promotional materials prepared and disseminated	All of the promotional material, market studies and the results achieved by the Project are available at the

		Project website for access by interested parties
<b>Output 2.3</b>		
Feasibility work funded through CABEL and other pre-feasibility funding sources€	Feasibility studies for at least 10 to 15 projects have been prepared by the end of the project.	ARECA has succeeded in getting CABEL in association with other donors to contribute over US\$ 1.4 million to undertake more than 20 feasibility studies. In addition, with the establishment of the Technical Assistance Fund ARECA has supported design and final studies for 13 projects. However, the first tranche of the TA fund (US\$600,000) were destined to evaluate the feasibility of only 2 projects. This was corrected with the implementation of the MTR which put a cap of US\$80,000 per feasibility study.
<b>Outcome 3:</b>		
SMREPs receiving financing through the Partial Risk Guarantee Facility and other innovative financing mechanisms	10 -20 loans approved to SMREPs by end of project	Achieved
	Collateral requirements and/or financing terms and conditions significantly improved for SMREPs	
<b>Output 3.1</b>		
Partial Risk Guarantee (PRG) mechanism established and operational	RE Guarantee Fund is established within CABEL during the first year of project	PRG program is operational. Legal and contractual documentation relating to PRG and associated financing has been prepared and updated periodically to reflect changes in technology, market and / or financing conditions.
	Loan guarantee operational manuals issued, cleared and disseminated	Standard loan guarantee forms, procedures and operational manual for RE projects have been developed and have been modified and improved to reflect changes in the RE market and incorporate lessons learned
	IFIs familiar with Guarantee program and make use of	A total of 37 agreements have been signed with IFIs for

	available documentation appropriately.	granting PRG. This is a direct reflection of the high degree of success that the PRG program has accomplished in filling the gap that has been preventing several SMREPs to reach financial closing. A great majority of the IFIs that have signed PRG agreements have not been involved in the financing of SMREPS in the past.
<b>Output 3.2</b>		
SMREPs identified, evaluated, and/or financed	5-10 projects financed by PRGM by end of year 3. PRG mechanism triggered approximately US\$ 80 M in investment in SMREPs by end of project	On a cumulative basis, ARECA has supported the financing of 9 SMREPs and triggered over US\$ 144 million of investments in SMREPs while there is a pipeline of 17 other SMREPs which have expressed interest in the PRG mechanism A sound proposal for the continuation of the ARECA program has been prepared but still needs to be approved by the PSC
<b>Output 3.3</b>		
Replication and exit strategy implemented	From year 4, interested parties approach CABEL with concrete proposal for recapitalization amounting to around US \$1 5 million. Agreement signed by project end.	ARECA has succeeded in obtaining additional funding from the government of Finland with the signing in 2009 of the Trust Fund Agreement between the Ministry of Foreign Affairs of Finland and CABEL for an initial amount of € 1 million which have been used to further capitalize the PRG fund.
<b>Output 4</b>		
Evaluating, learning and adaptive management are ensured	Project on schedule, meeting objective targets	The Project termination date had to be extended from December 2011 to December 2015 due to a slow project implementation during the first years
<b>Output 4.1</b>		
Comprehensive project impact monitoring and analysis system established	Tracking and analysis of project implementation (reports and reviews).	The monitoring of the project has been carried out successfully

		<p>Reports that are developed periodically include:</p> <ul style="list-style-type: none"> <li>▪ Project Annual Progress Reports</li> <li>▪ Project Implementation Reviews</li> <li>▪ Minutes of meetings of the Steering Committee</li> <li>▪ Presentations to the Steering Committee</li> <li>▪ Quarterly reports</li> </ul>
	All evaluations and audits conducted on time.	The MTR was conducted in mid-2011 and the Project has been subjected to annual internal audits and evaluations
<b>Output 4.2</b>		
Adaptive management systems established to inform and adjust project implementation based on lessons learned from monitoring system	A yearly (minimum) set of recommendations is issued and taken into account for adaptive management.	PSCC meetings have been held annually to assess the status of the Project and suggest changes to the logical framework and implementation strategy based on what has been learned from the monitoring system ARECA is a clear example of a good practice in collaboration between UNDP and development banks that has the potential to be replicated in other regions, or to be extended into a second phase in the Central American region where there is still ample potential for the implementation of SMREPs.
<b>Output 4.3</b>		
Regional information dissemination of project lessons and best practices for SMREP development and financing	Material available on the project's website accessed by interested parties.	This indicator has been exceeded given the large amount and high quality of material that is available at the website and the high number of visits and document downloads that continue to increase over time.

### 3.3.2 Relevance

ARECA continues to be a relevant project for Central America because it responds to the priorities of local and national development of the countries across the region, it promotes the implementation of small renewable energy for electricity generation options which are often the most cost effective energy service delivery alternative for rural areas, thereby contributing to economic development and simultaneously reducing emissions of CO<sub>2</sub>. ARECA also complies with the GEF operational programs.

In terms of relevance ARECA has been rated **Relevant (R)**

### 3.3.3 Effectiveness and Efficiency

Leaving aside the fact that the Project duration had to be extended from May 2012 to June 2016, all of the proposed outcome were achieved satisfactorily.

ARECA has succeeded in catalyzing new investments (from CABI and IFIs) for over US\$144 million corresponding to 22 SMREPs resulting in an additional installed capacity of 52 MW and an estimated direct annual GHG emissions of almost 170,000 tons of CO<sub>2</sub> and consequently CABI is now strategically positioned to participate in the financing of SMREPs having signed 76 agreements with various institutions including 36 contracts with IFIs for the granting of PRGs in countries across the region.

The PRG mechanism is operational and so far nine SMREPs have been granted PRGs resulting in over US\$ 21 million of investments while there are presently two other request under final evaluation.

Close to US\$ 1,000,000 of TA funding for pre-investment studies have been granted, way in excess of the US\$600,000 that have been targeted initially and a TA fund of US\$ 800,000 has been set up to provide non-refundable TA to support SMREPs up to US\$80,000 per project.

In terms of capacity building and training 20 market analysis and manuals together with information regarding regulations and project development and promotion materials have been prepared and over 5,500 developers, investors, RE consultants, IFI officials, NGO representatives have been trained

In terms of effectiveness ARECA is considered **Satisfactory (S)**.

As regards the resources used, it should be noted that the total cost of the Project amounted to US\$ 124,944,431.33 of which over US\$ 60 million came from CABI indicating its high degree of involvement and commitment to supporting the financing of SMREPs in the region.

Given that the GEF has donated US\$ 6,920,000, the leverage factor of resources has resulted in 18.1 substantially higher than the 11.8 estimate at the beginning of the Project. This shows great efficiency by CABI in mobilizing additional resources and thereby demonstrating the commitment of CABI to accelerate investment in SMREPs across the region.

The level of budget execution for GEF resources was 99.7% as of December 31, 2015.

In terms of efficiency ARECA is considered **Highly Satisfactory (HS)**

### 3.3.4 Country ownership

As mentioned in their respective UN Cooperation Framework (UNDAF), RE is a high priority for all of the participant countries as is also the case in their regional strategy of CCAD. As stated in

the PRODOC, in 2005 the Ministries of Energy and Ministers of Energy of the Central American countries signed the “San Pedro Sula Declaration on Renewable Energy and Environment” whereby these countries requested CABEL to speed up the procedures to effectively finance RE investments in the region and thus contribute to reduce their dependency on fossil fuels.

All countries across the region are members of CABEL and CABEL has an active network of IFIs which are showing increasing interest in scaling up their involvement in the financing of SMREPs. Furthermore, all countries are working on the preparation of their Second National Communications and with the exception of Panama and Nicaragua have also submitted their Intended Nationally Determined Contributions (INDCs) to UNFCCC in which improved penetration of RE generation plays an important role

### 3.3.5 *Mainstreaming*

The objectives and outcomes of the Project are fully aligned with UNDP country strategies across and are predicated on the delivery of GEF global environmental benefits in climate change mitigation. In addition, the Project has been effective in mainstreaming other UNPD priorities including

- **Poverty alleviation** through creation of income generation and employment opportunities that would arise from the development and implementation of SMREPs across the region and in particular through ARECA’s interventions in supporting project development and offering its guarantees to community led projects which represent a major challenge for the achievement of rural electrification and sustainable development goals.
- **Addressing gender equality.** As result of the Project interventions women that previously had no access to electricity are no longer wasting precious time gathering firewood or other fuels for cooking, heating and /or lighting their homes. Instead they can now be using this extra time for its personal and professional development including studying at night when they come back from work and/ or school
- **Improvement in policy and regulatory frameworks** for the catalyzing of SMREPs across the region.
- **Creation of job opportunities** for project developers, technical consultant and IFI officers across the region through capacity development and dissemination of lessons learned

### 3.3.6 *Sustainability*

The evaluation of the sustainability of the Project consists on determining the extent to which the Project benefits will continue once the financing support of GEF is over and in evaluating those risks that might jeopardized the continuation of the Project outcomes.

The key Project risks have been duly identified and evaluated in the various Project documents including PRODOC, APR, PIR and the Risk Management module under ATLAS). The majority of the risks that have been examined in those documents are still relevant. Those risks that have been identified by the Evaluator as being more critical for the sustainability of the Project are discussed in the following table.

Table 20 Sustainability and Risks

Risk	Comment
<b>Financial issues</b>	
<p>Output 3.3 calls for the design and implementation of a Project exit /replenishment strategy. In this regard there is currently a proposal has been prepared which still needs to be approved by the PSC. In a few words the proposal recommendations are:</p> <ul style="list-style-type: none"> <li>• Based on the success achieved to date to continue the ARECA Program under the FINAM Unit <sup>13</sup> of CABEL</li> <li>• The amount of funds available to carry on with the PRG and TG programs would come from the residual funds not committed at the end of the ARECA project plus funds that would become available from PRGs that may not get renewed and / or reduction in the coverage as CABEL and IFIs become more familiar with SMREP risks.</li> <li>• In addition, funds from payment of commissions for the renewal of PRGs and interest payments generated by Certificates of Deposit where the monies that are used to cover the PRGs are invested will also serve to maintain the sustainability of the ARECA program</li> <li>• Finally, consideration should be given to increasing of the average leverage ratio of the PRG fund (currently set at 1:3) as accumulated experience is likely to generate increase confidence in SMREPs will also help increase the sustainability of the ARECA program</li> <li>• For the continuation of the ARECA program a proposed team of three specialists (i.e. Coordinator, Technical-Financial specialist and technical analyst in M&amp;E) has been proposed</li> <li>• One aspect that the proposal for continuation of the ARECA program has not directly address is the need to continue seeking replenishment commitments from other sources. So far, ARECA has succeeded in getting a €2 million contribution from the Finnish government and has been in discussions with the Swedish International Development Agency (SIDA) regarding its potential funding contribution to the ARECA PRG fund.</li> </ul> <p>As mentioned earlier, to guarantee the sustainability of the ARECA program it is critical that a smooth and effective transition is achieved. Hence, the new team of professionals that will take over ARECA's responsibilities should work alongside the current ARECA team for a period of 4 to 6 months or at a minimum the Project Coordinator should remain as a consultant to facilitate the handover of ARECA activities to CABEL for that period of time.</p> <p>Assuming the terms of the proposed framework for the continuation of the ARECA program are approved as suggested and /or with minor or improved modifications <b>financial risks to sustainability are rated: Likely (L).</b></p>	
<b>Socio political issues</b>	
<p>The ARECA program has been highly successful so far and hence it is assumed that CABEL and the IFIs will remain interested in continuing supporting the ARECA program. Hence, <b>the socio-political risks to sustainability are rated Likely (L)</b></p>	
<b>Institutional framework and governance risks</b>	
<p>The legal frameworks, policies and governance structures and processes under which the ARECA program has been functioning in the different countries has continued to improve and hence there are unlikely to affect the sustainability of the ARECA program. <b>Institutional framework and government risks to sustainability are rated Likely (L)</b></p>	
<b>Environmental risks</b>	

<sup>13</sup> FINAM Unit – Financing for the Majority Unit

Risk	Comment
There have been clear environmental gains from the implementation of the SMREPs that ARECA has been able to support so far and there is no evidence that this will change. <b>Environmental risks to sustainability are rated Likely (L)</b>	

### 3.3.7 Impact

As regards the impact of the project, in its current state ARECA shows a definite progress toward intended global environmental benefits, both in terms of reduction or avoidance of GHG emissions and in sustainable market changes.

As mentioned earlier, ARECA has succeeded in surpassing almost all of its end of Project goals while striking an objective balance in providing TAs to project developers and IFIs while granting access to the PRG mechanism which has proved instrumental in accelerating the development of SMREPs across the region. A total of 12 PRGs have been issued of which 11 are still in force with a direct leveraging over US\$21 million for SMREP developments. In all, BCIE and its network of IFIs have catalyzed investments in SMREPs under 10MW of over US\$ 144 million with an estimated reduction of CO<sub>2</sub> of 167,931 tons per year corresponding to 52MW of installed capacity.<sup>14</sup>

In addition, ARECA has made a significant impact in addressing policy, capacity, market, and technical barriers to promote the development of SMREPs in the region which when combined with the implementation of the PRG mechanism has led to a step change in accelerating investments both on grid and decentralized renewable energy generation. In the latter case, ARECA has also been able to substantially improve the quality of life of the beneficiary remote communities.

Some examples of changes in legal and regulatory frameworks that took place over the life of the project include:

#### Panama

- Law No. 57 from October 2009, modifying various articles of Law No.6 from 1997.
- Law No. 69 from 12th October 2012, establishing general guidelines of the national energy policy for the rational and efficient use of energy in the country
- Law No. 37 of 10th June 2013 which established the incentive regimes for the promotion of the construction, operation and maintenance of RE generation plants and / or the installation of solar PV panels across the country

#### Costa Rica

- 2014-2018 Energy Policy Revision of the Electricity Contingency Law and Tariff analysis
- 2014-2018 Energy Policy- Agreement with the Costa Rica Industrial Chamber for the implementation of Law No. 7447
- Distributed generation pilot plan for self-consumption promoted by ICE from October 2010 until February 2015. Originally, the pilot plan was designed to end in 2012 and had a target of 5MW. Due to high level of acceptance the pilot plan was extended until February 2015 and the maximum installed capacity was raised to 10MW

<sup>14</sup> By comparison, according to the PRODOC the total annual emission reductions were targeted at about 172,000 tons of CO<sub>2</sub> per year on the assumption that the Project would be reaching the target of 34MW RE installed capacity by 2011

- designed with a target of 5MW . Due to the high acceptance in 2012

## Nicaragua

- To protect the final consumer and increase the transparency in the administration of the electricity sector, Law No. 554 (Energy Stability Law) was passed on September 13, 2012.
- Also in 2012, Law for the distribution and responsible use of the electricity public service was passed

## Honduras

- A law to Promote electricity generation with renewable energy was approved by Decree 70-2007 and published in the Official Gazette as No. 31422 on October 2, 2007
- Revisions to such law were made by Decree No. 138-2013
- Agreement No. 1562-2011 for Regulating the licensing of electricity generation projects of less than 3,00 kW
- General Law for the Electricity Industry was passed by Decree No.404-2013  
Knowing the relevance and importance of this law for the development of the country and the sector itself, ARECA has organized in conjunction with Honduras Association of Renewable Energy Producers a series of activities including:
  - Forum – Experiences of Electricity Market deregulation in Central America September 11, 2015
  - Workshop – Experiences in the operation of electricity systems February, 6, 2016
  - Visit to Guatemala to coordinate meeting with the objective of exchanging ideas, opinions and experiences with regard to the implementation of the electricity law in Guatemala March, 10 and 11, 2016

The objective of these events has been for neighbouring countries to present their experiences and lessons learned associated with the implementation of their energy laws.

## El Salvador

- Action Plan for the Saving and rational use of energy in El Salvador was approved by Decree No 404
- Law for creating the National Energy Council to promote the rational use of energy and necessary actions for for growth
- Energy Policy for the period 2013-2017
- Technical norms for the interconnection, operation, control and commercialization of distributed generation (NTGDR) and self-generators with energy surpluses were issued on October 2014

Consequently, impact is rated as <b>Significant (S)</b>
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#### 4. Conclusions

- ARECA has demonstrated the **effectiveness of a PRG mechanism in scaling up private investment in SMREPs** due to its ability to generate an important leverage. To date ARECA has granted PRGs for US\$ 4,287,360 resulting in direct investments in SMREPs in the order of \$US 25 million. Therefore, for every US\$ 1 set aside for the guarantee close to US\$ 6 of investment has been generated.
- ARECA has also confirmed that a **PRG scheme must be part of comprehensive program** designed to tackle all of the identified barriers since a PRG scheme can only address some but not all of the barriers faced by borrower as summarized in the following table

Table 21 Typical barriers faced by SMREPs

PRG schemes can help with	PRG schemes can not help with
<ul style="list-style-type: none"><li>• Financial modelling challenges</li><li>• Lack of collateral</li><li>• High up-front payments</li><li>• Longer paybacks</li><li>• Lack of technical capacity</li></ul>	<ul style="list-style-type: none"><li>• Legal framework issues</li><li>• Adverse regulatory environment</li><li>• Adverse behavior patterns</li><li>• Technology provider weaknesses</li><li>• Lack of awareness</li></ul>

In fact, virtually no PRGs had been granted prior to the implementation of the MTR recommendation of establishing a TA fund to develop final designs of eligible projects and another TA fund to increase CABEL's and IFI's technical capacities in the financial assessment process / technique of SMREPs which were two key barriers that were still present and could not be eliminated nor mitigated via the use of a PRG scheme alone. Hence, one of the important success factors has been the introduction of a **strong TA program** at both the supply and demand side of credit.

- Other key success factors of ARECA include:
  - The series of **in depth market assessments** that were undertaken the beginning of the project and the **proactive dialogues** that have taken place between CABEL and the IFIs to identify and quantify the type of risks that should be covered by the PRG and the terms that will be realistic and acceptable to the market
  - Its **operational flexibility and capacity to adapt to the specific needs of each target market**. Initially, the PRG coverage was set at 35% for all eligible products but this coverage ratio was later on increase to 75% in order to promote investments in off-grid
  - ARECA's strong **capacity building and awareness raising** components aimed at improving the identification of and technical and financial evaluation skills for SMREPs through courses, seminars and workshops targeted at private investors, IFIs, project developers, technical assistance service providers, public sector officials and organizations and institutions that promote electricity generation based on RE sources
  - Having a **dedicated staff of technical specialists and in-country facilitators** to support both project developers and local IFIs have been essential factors in reducing the IFIs barriers to lending to SMREPs and in improving the capacity of project developers throughout the region

- The offering of a relatively **low guarantee fee** compared with other guarantee products in the market (i.e., 1.5 % as opposed to 3 to 4%)

## 5. Recommendations and Lessons Learned

### 5.1 Recommendations

- **UNDP and CABEL need to agree urgently on the operational rules for the remaining funds before Project termination together with the evaluation of a proposal to ensure the continuity of the PRG program.** The PRODOC states that an agreement should be reached before Project end so action on this issue should be taken ASAP in order not to risk the sustainability of ARECA.
- **The structure of the new organization that will be in charge of taking the ARECA program forward and the new set of rules under which ARECA will operate should be defined ASAP.** Most importantly, in order to ensure a smooth and effective transition it is critical that the new team of professionals that will take over ARECA's responsibilities work alongside the current ARECA team for a period of 4 to 6 months or at a minimum the Project Coordinator should remain as a consultant to facilitate the handover of ARECA activities to CABEL for that period of time.
- **The gearing ratio of 1:3 which has been set for the PRG fund initially should be revised** with the objective of determining how much higher it could be set at based upon the current conditions. This will allow for an increase in the total amount a PRG that could be offered with the same amount of funds that are currently allocated to the PRG fund. So far none of the PRG granted to date have been called and IFIs have increased their capacities to analyze SMREP risks so it appears that there should be room to increase the gearing ratio while keeping a similar risk profile for the PRG mechanism
- **The conditions upon which the TA funds are being granted should be revised** in such a manner that those Projects that have obtained TA and succeed in reaching financing closing should be asked to return the TA funds either at financing closing or alternatively once they become operational to help maximize the use of the funds that have been allocated for TA. This will help with the replenishment of the TA fund and hence improve the sustainability of the ARECA program.
- In order to scale up investment in SMREPs more aggressively, **the combination of the TA programs and the PRG scheme should be combined with other financial products** designed to address specific market needs in each of the countries.
- **Continuation of the dissemination of best practices and lessons learned by the early takers of PRGs will be key to increase the use of the PRG scheme in the region.** The existence of the ARECA web page should be advertised more widely since it is an excellent platform for exchanging and disseminating best practices across the region.
- Aside from working with IFIs, **ARECA should also consider working with National Development Banks** across the region.
- **Widening the range of eligible SMREPs to include energy efficiency projects and ESCOs is another aspect that ought to be considered** to widen the eligibility of projects that could applied for PRGs.
- **The possibility of offering different coverage rations and/ or fee structure depending on the characteristics of the project should be evaluated in order to better promote investments in SMREP that would best meet the specific needs of each country.** This will require looking at the type of technology, size and location, grid vs off-grid, potential for increasing the quality of life of beneficiaries and / or promising strong environmental or social benefits aside from RE generation that would best fit with the development objectives of each country.

## 5.2 *Lessons learned*

In terms of lessons learned the following are the most important ones to take into consideration for the design of future programs:

- **ARECA is a clear example of a good practice of a successful collaboration between UNDP and development banks and has the potential to be extended into a second phase in the Central American region where there is still potential for the implementation of SMREPs and /or replicated in other regions.** CABEI has benefited from the long standing experience of UNDP in enhancing the capacity of policymakers to identify the right mix of public instruments to make investments in renewable energy projects financially attractive for the private sector, its close links to governments across the region and technical knowledge of SMREP technologies, their potential to reduce GHG emissions. On the other hand, in partnering with CABEI, UNDP has been able to gain direct access to CABEI's regional network of IFIs while taking advantage of CABEI knowledge of the regional financial markets coupled with its skills and expertise in the design of project specific financial packages and its track record to act as a catalyst in the mobilization of funds from external sources.
- **Implementation has been much slower than expected** and hence the duration of similar projects should be increased due to the difficulties in establishing the operational rules of a PRG mechanism plus TA program within organizations of the size of CABEI and the complexities derived from being a regional program intended to operate in several countries with distinct regulatory and legal frameworks.
- **Based on the poor performance of ARECA during the early years the MTR should have been done earlier.** MTRs are primarily a monitoring tool to identify challenges and outline corrective actions to ensure that a project is on track to achieve maximum results by its completion. In general terms the MTR process should coincide with the disbursement of 50% of the project's resources. However in the case of poorly performing projects there may be benefits to bring the MTR forward and take corrective actions sooner to bring the project back on track.
- **Lack of supporting regulatory frameworks and highly bureaucratic procedures to obtain the required licenses and PPAs** together with limited collateral and security capacities of project developers continued to be the greatest barriers faced by SMREPs across the region. Almost all countries in the region offer incentives for investing in RE projects. However, what it mostly help to launch RE investment at small and medium scales were the setting of regulations for distributed energy that allowed RE projects of less than 5MW to be interconnected to the distribution grid thus facilitating the interconnection of these small RE projects. In addition, these new regulations have allowed that part of the generation could be destined for self-consumption and the excess power sold to the grid. More importantly, the combination of these regulations together with RE energy targets that have been set by various countries and the launch of tenders for the long term purchase of energy has also encouraged private investors to participate in the development and implementation of small RE projects. Nevertheless, one of the hurdles is still the delays in the approval of the various licenses and permits which are required in each country for the implementation of RE projects particularly, those associated with the approval of Environmental Impact Assessments (EIAs).

- **The provision of an integrated financing package of technical assistance plus PRG has been crucial** to eliminate the barriers that have been preventing the implementation of SMREPs across the region and
- **The design and pricing of credit guarantee products should ensure that the transfer of credit risk from the lender to the guarantor does not lead to excessive risk-taking.** Otherwise, IFIs will not have incentives to carry out proper risk screening and credit monitoring and would rather be encouraged to take on high-risk borrowers that are willing to pay interest rates with relatively low risk to them. This situation needs to be minimized through proper risk sharing, which ensures that all parties – the borrower, the lender and the guarantor – retain a sufficiently high level of potential loss to ensure the repayment of the loan. Also, rules governing the collection process in case of a default event should ensure that the lender is motivated to pursue recovery efforts, for example by delaying the pay-out of the guarantee until recovery actions are initiated by the lender.
- **Monitoring and evaluation will continue to be a top priority to guarantee ARECA's sustainability and success.** A program like ARECA needs to be continuously evaluated (and, if need be, re-calibrated and / or redesigned) in order to ensure that it will be fully responsive to the changing conditions of the marketplace in each of the countries where is being offered. Parameters that have to be monitored include changes in: technology, RE resource availability, legal and regulatory frameworks, electricity demand and supply conditions, skills knowledge of project developers and IFIs, in country capital and financial markets, type and number of market participants, as well as, changes in other economic, political or social barriers.

## TE Terms of Reference

## Términos de referencia de la evaluación FINAL

### INTRODUCCIÓN

De acuerdo con las políticas y los procedimientos de SyE del PNUD y del FMAM, todos los proyectos de tamaño mediano y regular respaldados por el PNUD y financiados por el FMAM deben someterse a una evaluación final una vez finalizada la ejecución. Estos términos de referencia (TdR) establecen las expectativas de una Evaluación Final (EF) del **Proyecto “Acelerando las Inversiones de Energía Renovable a través del BCIE en Centroamérica (ARECA), (N.2042 de PIMS).**

A continuación, se presentan los aspectos esenciales del proyecto que se deben evaluar:

### CUADRO SINÓPTICO DEL PROYECTO

<b>Título del Proyecto:</b>	Proyecto “Acelerando las Inversiones de Energía Renovable a través del BCIE en Centroamérica” (ARECA)			
<b>Identificación del Proyecto del FMAM</b>	N.2042		<i>Al momento de aprobación (millones de US\$)</i>	<i>Al momento de finalización (millones de US\$)<sup>15</sup></i>
<b>Identificación del Proyecto del PNUD:</b>	N.2042	<b>Financiación del FMAM:</b>	<b>6,920,000.00</b>	<b>6,920,000.00<sup>16</sup></b>
<b>País:</b>	Honduras	<b>IA y EA poseen:</b>	<b>575,000.00</b>	<b>575,000.00</b>
		IA-PNUD (Honduras)	75,000.00	75,000.00
		EA-BCIE	500,000.00	500,000.00
<b>Región:</b>	Centroamérica	<b>Gobierno:</b>	-	-
<b>Área de interés:</b>	Energía Renovable	<b>Otro:</b>	<b>81,600,000.00</b>	<b>117,449,431.33</b>
		BCIE (Crédito)	25,000,000.00	58,318,700.00
		BCIE (Crédito/Donación-Preinversión)	600,000.00	987,914.50
		Inversionistas/Bancos	56,000,000.00	58,142,816.83
<b>Programa Operativo:</b>		<b>Cofinanciación Total:</b>	<b>89,095,000.00</b>	<b>124,944.431.33</b>
<b>Organismo de Ejecución:</b>	Banco Centroamericano de Integración Económica (BCIE)	<b>Gasto Total del Proyecto:</b>		
<b>Otros socios involucrados:</b>	Gobierno de Finlandia	Firma del Documento del Proyecto (fecha de comienzo del proyecto):		16 de Mayo, 2007
		Fecha de Cierre (Operativo):	Propuesto:	Real:
			16 de mayo, 2012	31 de diciembre, 2015

<sup>15</sup> Datos Contables al 31 de diciembre de 2014

<sup>16</sup> Monto estimado al 31 de diciembre de 2015

## OBJETIVO Y ALCANCE

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Este Proyecto fue diseñado para apoyar todas aquellas pequeñas y medianas inversiones en energía renovable menores de 10MW. Dicho Proyecto está basado en un enfoque regional, involucrando a las Repúblicas de: Guatemala, El Salvador, Honduras, Nicaragua, Costa Rica y Panamá, con el propósito de contribuir a la reducción de las emisiones de gases que producen el efecto invernadero, al promover el uso de sistemas de energía renovable para la producción de energía eléctrica, por consiguiente, contribuir al desarrollo económico de la región centroamericana. Asimismo, fue creado con el propósito de eliminar barreras financieras que actualmente impiden el desarrollo a gran escala de proyectos de energía renovable en Centroamérica, particularmente en el rango más pequeño de proyectos.

Como parte de los resultados está el apoyo directo a la implementación de por lo menos 12 proyectos pequeños y medianos en la región. Asimismo, el BCIE participará en el financiamiento de proyectos específicos, a través de préstamos directos de 25 millones de dólares que ha estimado para apoyar esta iniciativa, y 600 mil dólares para asistencias técnicas. Por otra parte, se espera que las IFIs calificadas por el BCIE provean 32 millones de dólares en financiamiento, mientras que 24 millones de dólares de capital serán parcialmente cubiertos por el mecanismo de las Garantías Parciales de Crédito.

La Evaluación Final se realizará según las pautas, normas y procedimientos establecidos por el PNUD y el FMAM, según se establece en la Guía de Evaluación del PNUD para Proyectos Financiados por el FMAM.

Los objetivos de la evaluación analizarán el logro de los resultados del proyecto y extraerán lecciones que puedan mejorar la sostenibilidad de beneficios de este proyecto y ayudar a mejorar de manera general la programación del PNUD.

## ENFOQUE Y MÉTODO DE EVALUACIÓN

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Se ha desarrollado con el tiempo un enfoque y un método general<sup>17</sup> para realizar evaluaciones finales de proyectos respaldados por el PNUD y financiados por el FMAM. Se espera que el evaluador enmarque el trabajo de evaluación utilizando los criterios de **relevancia, efectividad, eficiencia, sostenibilidad e impacto**, según se define y explica en la Guía para realizar evaluaciones finales de los proyectos respaldados por el PNUD y financiados por el FMAM. Se redactó una serie de preguntas que cubre cada uno de estos criterios incluidos en estos TdR ([Anexo C](#)). Se espera que el evaluador modifique, complete y presente esta matriz como parte de un informe inicial de la evaluación, y la incluya como anexo en el informe final.

La evaluación debe proporcionar información basada en evidencia que sea creíble, confiable y útil. Se espera que el evaluador siga un enfoque participativo y consultivo que asegure participación estrecha con homólogos de gobierno, en particular el Centro de Coordinación de las Operaciones del FMAM, la Oficina en el País del PNUD, el equipo del proyecto, el Asesor Técnico Regional del FMAM/PNUD e interesados clave. Se espera que el evaluador realice una misión de campo en *Guatemala, Honduras y Costa Rica*, incluidos los siguientes sitios del proyecto:

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<sup>17</sup> Para obtener más información sobre los métodos de evaluación, consulte [el Manual de planificación, seguimiento y evaluación de los resultados de desarrollo](#), Capítulo 7, pág. 163

## **Programa de Garantías Parciales de Crédito**

PAÍS	IFI'S	LUGAR, UBICACIÓN DEL PROYECTO	NOMBRE DEL DESARROLLADOR	NOMBRE DEL PROYECTO	TAMAÑO PROYECTO	MONTO DE LA GCP EN US\$
Guatemala	Financiera de Occidente	Pueblo Nuevo, Suchitepéquez	Proveedora de Energía Renovable Peña Flor, S.A	Proyecto Hidroeléctrico Peña Flor, Guatemala	598 kW	669,000.00
Honduras	BANPAIS	Ocotepeque	COFUSA	Proyecto Hidroeléctrico Quilio, Honduras	1,300 kW	865,000.00
Honduras	Banco Lafise	San Alejo, Comayagua	Aqua Futura, S.A. de C.V.	Proyecto Hidroeléctrico San Alejo, Honduras	2,100 kW	1,000,000.00
Costa Rica	Banco BAC San José	Flores, Heredia	Club Campestre Español	Proyecto Termo-fotovoltaico Club Campestre Español, Costa Rica	63,37 kW	135,000.00
Costa Rica	Banco BAC San José	San Juan, de San Ramón, Alajuela	Distribuidora Florex	Proyecto Fotovoltaico Distribuidora Florex, Costa Rica	31,62 kW	56,250.00
Costa Rica	Banco BAC San José	Palmares de Alajuela	Na Kakalú Solutions	Proyecto Fotovoltaico Na Lakalú Solutions, Costa Rica	186,7 kW	307,500.00

## **Programa de Asistencias Técnicas**

PAÍS	UBICACIÓN DEL PROYECTO	NOMBRE DEL BENEFICIARIO	PROYECTO	CAPAC. INSTAL. (MW)	BENEFICIARIOS	MONTO AT APROBADA
GUATEMALA	Pueblo Nuevo, Suchitepéquez	Empresa Proveedora de Energía Renovable "Peña Flor", S.A.	Proyecto Hidroeléctrico Peña Flor	0.60	67	66,293.00
GUATEMALA	Municipios de Pajapita y El Tumbador del Departamento de San Marcos	Empresa Agrícola La Entrada	Proyecto Hidroeléctrico Los Patos	5.00	250	80,000.00
HONDURAS	Municipios de San Francisco y La Másica, Depto. de Atlántida	Empresa Generadora de Energía Santiago (EGESA)	Proyecto Hidroeléctrico Santiago	2.5	108	80,000.00
HONDURAS	Municipio de San Francisco de Ojuera, Depto. de Santa Bárbara	Empresa Castor S.A.	Proyecto Hidroeléctrico El Molo	3.9	3,500	80,000.00
HONDURAS	Comunidades de las Labranzas y Rincón El Ocotillo", Municipio de Nacaome, Depto. de Valle	Alcaldía Municipal de Nacaome	Proyecto Desarrollo de Energías Renovables en Las Comunidades de las Labranzas y Rincón El Ocotillo", del Municipio de Nacaome, Departamento de Valle	0.00694	357	80,000.00

Las entrevistas se llevarán a cabo con las siguientes organizaciones e individuos como mínimo:

No.	PAÍS	INSTITUCIÓN
1.	GUAT	Banrural
2.	GUAT	Banrural
3.	GUAT	Banrural
4.	GUAT	Banco industrial
5.	GUAT	Banco Industrial
6.	GUAT	Banco Industrial
7.	GUAT	Bantrab
8.	GUAT	Banco Agromercantil
9.	GUAT	Financiera de Occidente S.A.
10.	HN	Asociación Hondureña de Pequeños Productores de Energía Renovable (AHPER)
11.	HN	Empresa Río Blanco Energy S.A. de C.V.
12.	HN	Compañía Fuerza de Occidente S.A. de C.V. (COFUSA)
13.	HN	Empresa Castillo Torres Energy S.A. de C.V. (CASTOR)
14.	HN	Banco del País S.A.
15.	HN	Banco LAFISE S.A.
16.	HN	Cooperación Técnica Alemana (GIZ)- Programa 4 E (GIZ) Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
17.	HN	Alcaldía Municipal de Nacaome
18.	HN	Alcaldía Municipal de Namasigüe
19.	HN	Mancomunidad de los Municipios del Sur (NASMAR)
20.	HN	Secretaría de Energía, Recursos Naturales, Ambiente y Minas (SERNA)

El evaluador revisará todas las fuentes de información relevantes, tales como el documento del proyecto, los informes del proyecto, incluidos el IAP/IEP anual y otros informes, revisiones de presupuesto del proyecto, examen de mitad de período, informes de progreso, herramientas de seguimiento del área de interés del FMAM, archivos del proyecto, documentos nacionales estratégicos y legales, y cualquier otro material que el evaluador considere útil para esta evaluación con base empírica. En el [Anexo B](#) de estos Términos de Referencia se incluye una lista de documentos que el equipo del proyecto proporcionará al evaluador para el examen.

## CRITERIOS Y CALIFICACIONES DE LA EVALUACIÓN

Se llevará a cabo una evaluación del rendimiento del Proyecto, en comparación con las expectativas que se establecen en el Marco Lógico del Proyecto y el Marco de resultados ([Anexo A](#)), que proporciona indicadores de rendimiento e impacto para la ejecución del proyecto, junto con los medios de verificación correspondientes. La evaluación cubrirá mínimamente los criterios de: **relevancia, efectividad, eficiencia, sostenibilidad e impacto**. Las calificaciones deben proporcionarse de acuerdo con los siguientes criterios de rendimiento. Se debe incluir la tabla completa en el resumen ejecutivo de evaluación. Las escalas de calificaciones obligatorias se incluyen en el [Anexo D](#) de los TdR.

Calificación del rendimiento del proyecto			
1. Seguimiento y Evaluación	calificación	2. Ejecución de los IA y EA:	calificación
Diseño de entrada de SyE		Calidad de aplicación del PNUD	
Ejecución del plan de SyE		Calidad de ejecución: organismo de ejecución	
Calidad general de SyE		Calidad general de aplicación y ejecución	
3. Evaluación de los resultados	calificación	4. Sostenibilidad	calificación
Relevancia		Recursos financieros:	
Efectividad		Socio-políticos:	
Eficiencia		Marco institucional y gobernanza:	
Calificación general de los resultados del proyecto		Ambiental:	
		Probabilidad general de sostenibilidad:	

## FINANCIACIÓN/COFINANCIACIÓN DEL PROYECTO

La evaluación valorará los aspectos financieros clave del proyecto, incluido el alcance de cofinanciación planificada y realizada. Se requerirán los datos de los costos y la financiación del proyecto, incluidos los gastos anuales. Se deberán evaluar y explicar las diferencias entre los gastos planificados y reales. Deben considerarse los resultados de las auditorías financieras recientes, si están disponibles. Los evaluadores recibirán asistencia de la Oficina en el País (OP) y del Equipo del Proyecto para obtener datos financieros a fin de completar la siguiente tabla de cofinanciación, que se incluirá en el informe final de evaluación.

Cofinanciación (tipo/Fuente)	Financiación propia del PNUD (millones de USD)		Gobierno (millones de USD)		Organismo Asociado (millones de USD)		Total (millones de USD)	
	Planificado	Real	Planificado	Real	Planificado	Real	Planificado	Real
Subvenciones	6,920,000.00	6,920,000.00	-	-	-	-	6,920,000.00	6,920,000.00
Préstamos/concesiones	-	-	-	-	25,600,000.00	59,306,614.50	25,600,000.00	59,306,614.50
Ayuda en Especie	75,000.00	75,000.00	-	-	500,000.00	500,000.00	575,000.00	575,000.00
Otro (Inversionistas/Bancos)	-	-	-	-	56,000,000.00	58,142,816.83	56,000,000.00	58,142,816.83
<b>Totales</b>	<b>6,995,000.00</b>	<b>6,995,000.00</b>	<b>-</b>	<b>-</b>	<b>82,100,000.00</b>	<b>117,949,431.33</b>	<b>89,095,000.00</b>	<b>124,944,431.33</b>

## INTEGRACIÓN

Los proyectos respaldados por el PNUD y financiados por el FMAM son componentes clave en la programación nacional del PNUD, así como también en los programas regionales y mundiales. La evaluación valorará el grado en que el proyecto se integró con otras prioridades del PNUD, entre ellos la reducción de la pobreza, mejor gobernanza, la prevención y recuperación de desastres naturales y el género.

## IMPACTO

Los evaluadores valorarán el grado en que el proyecto está logrando impactos o está progresando hacia el logro de impactos. Los resultados clave a los que se debería llegar en las evaluaciones incluyen si el proyecto demostró: a) mejoras verificables en el estado ecológico, b) reducciones verificables en la tensión de los sistemas ecológicos, y/o c) un progreso demostrado hacia el logro de estos impactos.<sup>18</sup>

## CONCLUSIONES, RECOMENDACIONES Y LECCIONES

El informe de evaluación debe incluir un capítulo que proporcione un conjunto de **conclusiones, recomendaciones y lecciones**.

## ARREGLOS DE APLICACIÓN

La responsabilidad principal para gestionar esta evaluación radica en la OP del PNUD en *Honduras*. La OP del PNUD contratará a los evaluadores y asegurará el suministro oportuno de viáticos y arreglos de viaje dentro del país para el equipo de evaluación. El Equipo del Proyecto será responsable de mantenerse en contacto con el equipo de Evaluadores para establecer entrevistas con los interesados, organizar visitas de campo, coordinar con el Gobierno, etc.

## PLAZO DE LA EVALUACIÓN

La duración total de la evaluación será de **47** días de acuerdo con el siguiente plan:

Actividad	Período	Fecha de finalización
<b>Preparación</b>	<b>7</b> días	Las fechas de finalización de las actividades estarán en función de la
<b>Misión de evaluación</b>	<b>15</b> días	

<sup>18</sup> Una medida útil para medir el impacto del avance realizado es el método del Manual para la Revisión de Efectos Directos a Impactos (RoTI, por sus siglas en inglés) elaborado por la Oficina de Evaluación del FMAM: [ROTI Handbook 2009](#)

<b>Borrador del informe de evaluación</b>	20 días	fecha de la firma del contrato de los evaluadores. Sin embargo, en principio se prevé que la evaluación inicie en el mes de Julio, de manera que se pueda contar con un documento final en el mes septiembre.
<b>Informe final</b>	5 días	

## RESULTADOS FINALES DE LA EVALUACIÓN

Se espera que el equipo de evaluación logre lo siguiente:

Resultado final	Contenido	Período	Responsabilidades
<b>Informe inicial</b>	El evaluador proporciona aclaraciones sobre los períodos y métodos	A los 7 días de la entrega de la documentación al consultor	El evaluador lo presenta a la OP del PNUD
<b>Presentación</b>	Resultados iniciales	Al finalizar la misión de evaluación	A la gestión del proyecto, OP del PNUD
<b>Borrador del informe final</b>	Informe completo, (por plantilla anexada) con anexos	A los 20 días de la presentación de los resultados iniciales	Enviado a la OP, revisado por los ATR, las PCU, los CCO del FMAM.
<b>Informe final*</b>	Informe revisado	Dentro del plazo de 7 días después haber recibido los comentarios del PNUD sobre el borrador	Enviado a la OP para cargarlo al ERC del PNUD

\*Cuando se presente el Informe Final de Evaluación, también se requiere que el evaluador proporcione un 'itinerario de la auditoría', donde se detalle cómo se han abordado (o no) todos los comentarios recibidos en el informe final de evaluación.

## COMPOSICIÓN DEL EQUIPO

El equipo de evaluación estará compuesto por *1 evaluador internacional* que deberán tener experiencia previa en evaluación de proyectos similares. Es una ventaja contar con experiencia en proyectos financiados por el FMAM. El evaluador seleccionado no debe haber participado en la preparación o ejecución del proyecto ni deben tener ningún conflicto de intereses con las actividades relacionadas al proyecto.

Los miembros del equipo deben reunir las siguientes calificaciones:

- Grado académico en ingeniería, ciencias ambientales, económicas y empresariales orientadas a inversiones en energías renovables. De preferencia con post grado en sector eléctrico, administración de empresas y/o finanzas.
- Experiencia de al menos 10 años en diseño, formulación e implementación de programas o proyectos de desarrollo.
- Experiencia específica en evaluaciones de proyectos sobre inversiones en el sector de energías renovables (al menos 3 procesos de evaluación de proyectos.)
- Conocimiento del sector financiero centroamericano.
- Conocimiento del mercado eléctrico centroamericano.

- Conocimientos de las políticas, leyes y normativas del sector eléctrico centroamericano.
- Experiencia en evaluación económico financiero de los proyectos de energía renovable, sector eléctrico Centroamericano.
- Conocimiento de la estructuración de préstamos para proyectos de energía renovable.
- Dominio del contexto energético y sus tecnologías en Honduras y Centroamérica.
- Conocimiento sobre el funcionamiento del SIEPAC (Sistema de Interconexión eléctrica de los Países de América Central)
- Experiencia demostrable de trabajo con el Sistema de las Naciones Unidas y bancos de desarrollo regionales.
- Dominio de la metodología del marco lógico, gestión basada en resultados y enfoque de gestión del conocimiento.
- Conocimiento sobre la transversalización del enfoque de género, derechos humanos e interculturalidad.
- Dominio de idioma español e inglés

## ÉTICA DEL EVALUADOR

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Los consultores de la evaluación asumirán los más altos niveles éticos y deberán firmar un Código de Conducta (Anexo E) al aceptar la asignación. Las evaluaciones del PNUD se realizan de conformidad con los principios que se describen en las '[Directrices éticas para evaluaciones](#)' del Grupo de Evaluación de las Naciones Unidas (UNEG).

## MODALIDADES Y ESPECIFICACIONES DE PAGO

%	Hito
20%	Al firmar el contrato.
40%	Después de la presentación y aprobación del Primer Borrador del Informe Final de Evaluación.
40%	Después de la presentación y aprobación (OP del PNUD y ATR del PNUD) del Informe Final Definitivo de Evaluación.

## PROCESO DE SOLICITUD

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### Presentación de oferta técnica

Las aplicaciones deberán ser enviadas al correo [adquisicionespnudhn@undp.org](mailto:adquisicionespnudhn@undp.org) hasta el 22 de julio de 2015, de acuerdo con las siguientes instrucciones:

Los consultores individuales interesados en participar en el proceso de selección, deben remitir los siguientes documentos/información para demostrar sus calificaciones:

- Carta confirmando interés y disponibilidad para ejecutar la consultoría;
- Metodología de trabajo;
- Cronograma de trabajo;
- Hoja de vida en la forma P11 actualizada debidamente firmada.

Se debe emplear los formatos que se encuentran en el vínculo

<http://www.hn.undp.org/content/honduras/es/home/operations/Empleos/>

## Presentación de oferta económica

La oferta económica deberá especificar un monto suma alzada y establecer un plan de pagos basado en productos entregables específicos y medibles (cualitativa y cuantitativamente) según se especifica en los Términos de Referencia.

A manera de facilitar la comparación de ofertas económicas, esta debe incluir un desglose de costos empleando para ello el formato incluido.

La oferta económica que presente el contratista deberá considerar lo siguiente:

- Honorarios del contratista;
- Gastos de permanencia (viáticos);
- Costo de desplazamiento (viajes);
- Equipos y papelería.

Todos los costos relacionados con los viajes deben ser incluidos en la oferta económica. En el caso de los viajes imprevistos, el pago de los gastos de viaje que incluye boletos aéreos, alojamiento y gastos terminales debe ser acordado entre PNUD y el Contratista Individual, antes del viaje y se calculará el reembolso. En apego a la normativa para contratación de contratistas individuales del PNUD, antes de empezar su trabajo todo contratista mayor de 62 años que requiera viajar en cumplimiento de los servicios solicitados deberá contar con un Medical Clearance. Una vez seleccionado el contratista, la oficina del PNUD Honduras proveerá los datos de contacto de los médicos aprobados por el Sistema de las Naciones Unidas en su País de origen. El costo de los exámenes médicos necesarios para el medical clearance deberá ser cubierto por el contratista.

## Adjudicación

La adjudicación del contrato se realizará a través de empleando el siguiente criterio puntaje más alto tras el análisis acumulativo.

Bajo esta metodología, la adjudicación del contrato se recomendará al contratista individual cuya oferta ha sido evaluada y se ha determinado que:

- ha cumplido con los requisitos establecidos para este proceso, su oferta responde a los requerimientos incluidos en los TDR, la oferta se ha determinado aceptable, y;
- ha obtenido el más alto puntaje asignados a criterios técnicos y económicos predeterminados específicamente para esta solicitud.

A fin de determinar el puntaje acumulado final, se empleará la siguiente fórmula:

$$P=y(u/z)$$

Donde

P= puntaje obtenido por la oferta económica en evaluación.

y= puntaje máximo asignado a la oferta económica.

u= precio de la oferta económica más baja

z= precio de la oferta económica en evaluación

## ANEXO A: MARCO LÓGICO DEL PROYECTO

### **REVISION DE CUADRO LOGICO DEL PROYECTO ARECA EN BASE A RECOMENDACIÓN DEL MTE Y REUNION TRIPARTITA DEL PROYECTO**

Estrategia del proyecto.	Indicadores objetivamente verificables.				
Metas.	Las emisiones que producen el efecto invernadero se reduce en la región de Centro América por medio de la inversión en energía renovable para proyectos (menores a los 10 MV) para reemplazar el sector de energía basado en el combustible fósil				
Objetivos y resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Resultados Alcanzados
Objetivos del proyecto: para remover las barreras principales al financiamiento y capacidad de los proyectos de ER en pequeña y mediana escala (SMREP por	Número de proyectos apoyados por ARECA financiados por BCIE y/o IFI´s  La capacidad instalada de ER en MV para finales del	Financiamiento mínimo es canalizado por el BCIE y sus IFI para los SMREP  Ningún mecanismo de financiamiento establecido	El financiamiento de 30-40 MV de SMREP por el BCIE y sus IFI, en la forma de por lo menos 12 SMREP	<ul style="list-style-type: none"> <li>• APR s</li> <li>• Informes de Monitoreo</li> <li>• Entrevistas con beneficiarios</li> <li>• POAs</li> <li>• Publicaciones y material de diseminación</li> <li>• Sitio web del proyecto</li> </ul>	<p><u>Pertinencia:</u></p> <p>La evaluación ha constatado que las metas y objetivos del proyecto ARECA no solamente son relevantes para los beneficiarios, sino que mantienen relevancia al momento de la evaluación.</p> <p>Sin embargo, algunos de sus resultados han perdido relevancia para la obtención de estos desde que el proyecto fue diseñado.</p>

debajo de 10 MV) en Centro América	<p>proyecto bajo construcción al final del proyecto</p> <p>El mecanismo de garantía es demostrado como una herramienta efectiva para catalizar financiamiento en SMREP</p>		<p>Por lo menos 10 MV en construcción para el final del proyecto</p> <p>La garantía parcial de riesgo ha sido usada para apoyar por lo menos 5 SMREP.</p> <p>El SMREP demuestra potencial de catalizar aproximadamente 80 millones de dólares para el desarrollo de los SRMEP</p>	<p>Proyectos aprobados</p> <p>Garantías parciales emitidas</p>	<p>Se sugiere entonces, usar como guía rectora los paradigmas establecidos en las metas objetivos y reformular algunos de sus resultados.</p> <p><u>Resultados Alcanzados:</u></p> <p>Hasta el momento de esta evaluación, el proyecto ARECA ha cumplido parcialmente con los resultados establecidos, pero preocupa el hecho de que algunos resultados no serán alcanzados a menos que el Marco Lógico del proyecto no sea cambiado o reformulados.</p>
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Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
<p>Resultado 1:</p> <p>El BCIE asume un papel catalítico en promocionar estratégicamente a los préstamos a proyectos de SMREP en base de finanzas</p>	El BCIE es percibida como una institución de préstamo para el desarrollo de los SMREP	El BCIE no está involucrada en el mercado de SMREP	El BCIE tiene una estrategia asociativa con IFI locales en cada país miembro para desarrollar los SMREP	Entrevistas con Actores	<p><u>Pertinencia:</u></p> <p>La evaluación ha constatado que este resultado no solamente es válido, sino que mantiene relevancia al momento de la evaluación.</p> <p><u>Resultados Alcanzados:</u></p> <p>Este resultado aun no ha sido alcanzado.</p> <ul style="list-style-type: none"> <li>El BCIE aun es percibido como una entidad muy burocrática, orientada e interesada solo a grandes proyectos.</li> <li>El BCIE aun no tiene una estrategia consolidada con IFIs locales específica por país para desarrollar SMREPs</li> </ul>
	El BCIE provee financiamientos para proyectos SMREP en la región.	Financiamiento limitado para SMREP	Financiamiento por US\$ 25MM financiado por le BCIE o por la líneas de crédito que tiene el BCIE	Montos financiados	
	El BCIE institucionaliza	El BCIE no cuenta con un programa de	BCIE cuente como mínimo con un programa para apoyar a los SMREP		

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
	programas de apoyo al SMREP	apoyo a los SMREP		Iniciativa creada y documentada	
Resultado 1.1					
Estrategia interna, política y procedimiento, la estructura establecida dentro del BCIE para apoyar el financiamiento de los SMREP en la región	La financiación de los SMREP está bien ubicada en la estrategia de energía del BCIE: una unidad de soporte de financiamiento para los SMREP existe; el personal está al tanto de políticas y estrategias	El BCIE no se involucra en la financiación de los SMREP	Una cartera de préstamos activo en el BCIE para finales del año 3	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informe de Monitoreo II</li> <li>• Entrevistas con beneficiarios</li> </ul>	<p>Este resultado se ha alcanzado parcialmente.</p> <p>A nivel de estructura y procedimientos se ha logrado:</p> <ul style="list-style-type: none"> <li>• El BCIE ha logrado apropiarse del Proyecto ARECA y para esto la estructura institucional ha integrado el área de productos que facilita la inmersión del proyecto dentro de BCIE.</li> <li>• Como se ha dicho en la sección 6.1.1, se ha logrado la simplificación del Manual de GPR.</li> <li>• No obstante lo anterior la oferta de productos y líneas de negocio del BCIE no se adaptan a las necesidades de las SMREP, tal es el caso del FONTEC que aun apuntan solo a proyectos grandes, dejándose así desprotegidas a las SMREPs frente a la necesidad de financiamiento de pre-inversión y donde se esperaba una mayor participación activa del BCIE.</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
Resultado 1.2					
Análisis del mercado de la energía renovable	Características del mercado de energía renovable (política, precios, impuestos) disponibles al BCIE y el personal de los IFI	Poca consolidación de información disponible en el mercado de SMREP	Política de análisis y estructura regulatoria está disponible en cada país.	<ul style="list-style-type: none"> <li>• Análisis de las publicaciones referidas</li> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> </ul>	<p>Este resultado ha sido alcanzado.</p> <ul style="list-style-type: none"> <li>• ARECA ha producido una serie de Estudios de Mercados por país y los ha puesto a disposición de los actores a través de Talleres y Eventos de Diseminación</li> <li>• ARECA está en proceso de publicar otra serie de Estudios orientados a los Marcos Regulatorios.</li> </ul> <p>Las actividades de diseminación deben continuar durante la vida del proyecto y el análisis de mercado actualizado al final del mismo.</p>
Resultado 1.3					
Sinergias formalizadas establecida entre instituciones financieras disponibles y futuras e instrumento relevantes para la	Documentación simplificada relacionada con la ER en pequeña escala identificando prestamos, préstamos	Ninguna documentación disponible detallando el financiamiento de la ER e	Documentos relacionados con los SMREP identificando préstamos, prestamos concesionales y garantías	<ul style="list-style-type: none"> <li>• Análisis de las publicaciones referidas</li> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• Entrevistas</li> </ul>	<p>Este resultado no ha sido alcanzado en su totalidad, pero ha tenido un gran avance.</p> <p>Una buena contribución de ARECA son esta serie de publicaciones que ayudan a las instituciones financieras a entender los procesos para el desarrollo de proyectos de ER</p>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
financiación de los SMREP en base a financiación de proyecto	concesionales, garantías y publicaciones periódicas de análisis para el beneficio de promotores de proyectos	instrumentos relacionados	elaboradas y desimánada para finales del año 1. Y actualizaciones cuando sean necesarias		<p>y además entender los mercados eléctricos de la región:</p> <ul style="list-style-type: none"> <li>• ARECA ha producido las "Guía para el Desarrollo de Proyectos de Energía Renovable en Centroamérica y Panamá"</li> <li>• Los beneficiarios del proyecto han manifestado la utilidad de estas guías.</li> <li>• ARECA produce publicaciones periódicas</li> <li>• ARECA tiene mecanismos de diseminación de estos documentos.</li> <li>• Un tema pendiente aún que sería de gran provecho para las instituciones financieras es la producción de un "manual de análisis financiero bajo la metodología de project finance en proyectos de ER" que ayude a la banca a conocer más sobre esta metodología, que en a nivel general es desconocida por la banca.</li> </ul>
	Reuniones periódicas entre el BCI y los IFI para desarrollar sinergias en relación a las finanzas de los proyectos SMREP	Ningún análisis activo dentro del BCIE y los IFI socios en el financiamiento disponible para la ER	Por lo menos un taller anual con el BCIE y los IFI participantes enfocado en proyectos de energía	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• Entrevistas</li> </ul>	<p>Este resultado está siendo alcanzado.</p> <ul style="list-style-type: none"> <li>• ARECA realiza reuniones entre los oficiales de cada país del BCIE e IFIS locales.</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
			renovable de pequeña escala		
Resultados 2:					
El BCIE y los IFI han desarrollado la capacidad (técnica y financiera) para financiar los SMREP	<p>El BCIE (Oficinas principales y oficinas de país) y los IFI están evaluando e identificando los SMREP</p> <p>Las IFIs se involucran en el financiamiento de SMREP</p>	<p>Ningún enfoque específico en el apoyo de SMREP en la cartera de préstamo dentro del BCIE y los IFI regionales</p> <p>Financiamiento limitado para apoyar a los SMREP</p>	<p>Evaluación de los SMREP son realizados por la oficina del BCIE en cada país y IFI socias en cada país miembro</p> <p>Al menos 5 SMREP han sido financiados por las IFIs</p>	<p>Encuesta con actores</p> <p>Número de proyectos financiados por las IFIS</p>	<p><u>Pertinencia:</u></p> <p>La evaluación ha constatado que este resultado no solamente es válido, sino que mantiene relevancia al momento de la evaluación.</p> <p><u>Resultados Alcanzados:</u></p> <p>Este resultado ha sido alcanzado parcialmente.</p> <ul style="list-style-type: none"> <li>La respuesta de las oficinas por país del BCIE es dispar y no atiende un enfoque ajustado a la realidad por país.</li> <li>Aun no hay un enfoque específico para el apoyo a las SMREP dentro del BCIE y los IFIs regionales.</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
Resultado 2.1					
Capacidad desarrollada dentro del BCIE y los IFI para identificar/evaluar/financiar los SMREP e implementar la GPR	Seminarios y sesiones de entrenamiento para la financiación de proyectos de ER ofrecida	Ningún entrenamiento disponible	Recursos humanos entrenados y especializados están en las oficinas principales del BCIE, oficinas de los países, y los IFI socios para los proyectos SMREP (80 a 100 individuos)	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• Página web</li> <li>• Entrevistas</li> </ul>	<p>Este producto ha sido alcanzado en un par de países entre ellos Honduras y Costa Rica pero no de manera homogénea en la región</p> <ul style="list-style-type: none"> <li>• En países como Nicaragua el esfuerzo de ARECA en desarrollar capacidades debe continuar para el logro de este objetivo.</li> <li>• En países como Guatemala, el Salvador e inclusive Panamá deberá fortalecerse la competitividad del BCIE para promover su liderazgo y transmisión de conocimientos a las IFI.</li> </ul>
Resultados 2.2					
Incrementar el conocimiento de la oportunidad de financiación de los SMREP ( incluyendo la GPR) entre los accionistas, incluyendo los	Conocimiento dentro de los IFI conforme a la estrategia de financiamiento de ER del BCIE	Ninguna información esta disponible sobre la financiación o material de entrenamiento (incluyendo la GPR) y	Sesiones de entrenamiento en como planear la financiación de proyectos de ER ofrecida. Talleres para diseminar las	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• Página web</li> <li>• Entrevistas</li> </ul>	<p>Este producto ha sido alcanzado parcialmente.</p> <ul style="list-style-type: none"> <li>• En un intento para capacitar a desarrolladores de proyectos, ARECA ha producido las "Guía para el Desarrollo de Proyectos de Energía Renovable en Centroamérica y Panamá"</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
desarrolladores de los proyectos en particular		<p>oportunidades disponible para incrementar el conocimiento y la capacidad global para así financiar los SMREP.</p> <p>Ninguna información consolidada disponible</p>	<p>modalidades de financiamiento y entrenar a los accionistas en el desarrollo de proyectos, planeación de proyectos, el uso de la GPR, y la preparación de propuesta bancarios. Por lo menos un evento de entrenamiento en cada país (30 participantes) para desarrolladores de proyectos, OBG y inversores potenciales.</p> <p>Materiales promocionales preparado y desimanado</p>		<ul style="list-style-type: none"> <li>Los beneficiarios de este producto han manifestado la utilidad de estas guías.</li> <li>ARECA realiza Seminarios y sesiones de entrenamiento para la financiación de proyectos de ER</li> <li>ARECA produce publicaciones periódicas</li> <li>Se estima que aún no hay recursos humanos especializados en muchas IFIs asociadas al BCIE o entre desarrolladores/SMREPs.</li> <li>Aun no se ven cristalizadas las sinergias potenciales entre las IFIs y los desarrolladores de proyectos.</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
Resultados 2.3					
Trabajos de viabilidad financiado por el BCIE y otras fuentes de pre viabilidad	Guía interna disponible conforme a la financiación de viabilidad. Incluyendo la opción de recibir financiación TA del BCIE en base a un prestamos de reembolso	Pocos proyectos de ER recibiendo TA para trabajos de viabilidad	Trabajos de viabilidad de por lo menos de 10 a 15 proyectos han sido preparados para el final del proyecto	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• POA 2011</li> </ul>	<p>Este resultado no ha sido alcanzado y el evaluador estima que se deberá hacer una modificación drástica a la Matriz Lógica del PRODOC y así reorientar el desarrollo del proyecto, para que se cumpla en su totalidad.</p> <ul style="list-style-type: none"> <li>• Han habido solo dos estudios de pre-inversión apoyados por el BCIE de impacto muy bajo para el proyecto ARECA</li> <li>• Con estos dos estudios se han cubierto los recursos comprometido por el BCIE para apoyar proyectos menores a 10MW establecidos en el presupuesto original.</li> <li>• No hay consideraciones presupuestarias ni reubicación de recursos para este rubro en el POA 2011.</li> <li>• El Proyecto ARECA ha remitido a la Alianza de Energía y Ambiente a la fecha 10 proyectos para su evaluación de apoyo en pre inversión, están pendiente de aprobación.</li> </ul>
Resultado 3:					
Los SMREP recibiendo	Número de proyectos	Número de proyectos para	Un minimo de 5 SMREP	<ul style="list-style-type: none"> <li>• APR del año 2010</li> </ul>	<u>Pertinencia:</u>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
financiación por medio de la garantía parcial de riego y otros mecanismos de financiación	<p>apoyados por medio de la GPR para los SMREP aprobados por el BCIE y las IFI</p> <p>La GPR demuestra continuidad a la finalización del proyecto</p> <p>El requerimiento del colateral reducido por los IFI para los SMREP</p>	<p>los SMREP es bajo, y ninguno hace uso del fondo de garantía</p> <p>La GPR ofrece 5 millones en garantías financiados por los fondos GEF</p> <p>Requerimientos colaterales de hasta 150% del valor de la deuda</p>	<p>apoyados por la GPR para el final del proyecto</p> <p>Al final del proyecto la GPR ofrece 15 millones en garantías financiados por los fondos GEF y otros.</p> <p>Al menos 5 proyectos apoyados por ARECA son financiados bajo la modalidad Project Finance, mejorando los colaterales y términos de financiamiento para los SMREP</p>	<p>• Informes de Monitoreo • Entrevistas</p> <p>Monto financiado por las GPC</p> <p>Número de proyectos financiado bajo Project Finance</p>	<p>La evaluación ha constatado que este resultado no es pertinente, así como está especificado en el Marco Lógico del PRODOC, para satisfacer la meta del proyecto ARECA. Las condiciones del mercado actualmente hacen que sea evidente la necesidad de apoyo a las SMREPs mediante otras herramientas financieras, distribuyendo así el peso específico que ARECA tiene en las GPR. <i>La herramienta como único instrumento no es pertinente, y debe ser complementada con otros productos que den cobertura a las necesidades aquí identificadas.</i></p> <p><u>Resultados Alcanzados:</u></p> <p>Los logros alcanzados para este resultado están lejos de satisfacer las expectativas del marco Lógico. Es difícil evaluar cuán lejos porque los indicadores no se han cuantificado adecuadamente..</p> <ul style="list-style-type: none"> <li>• ARECA logro que un proyecto sea financiado por la banca local por la modalidad "Project Financing".</li> <li>• ARECA logro que el BCIE ponga a disposición de las SMREPs un fondo de GPR con mecanismos simplificados</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
	Proyectos apoyados por el fondo de asistencia técnica de ARECA acceden a financiamiento	No existe apoyo de Asistencia Técnica para los SMREP	Al menos 5 SMREP acceden a financiamiento con apoyo del Fondo de Asistencia Técnica	Numero de SMERP que acceden al Fondo de Asistencia Tencica	<ul style="list-style-type: none"> <li>El proyecto ARECA ha dado pasos sólidos en la elaboración de un pipeline de SMREPs</li> <li>No hay ninguna GCPs adjudicadas en este momento.</li> </ul>
Resultados 3.1					

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
El mecanismo de la Garantía Parcial de riesgo	El mecanismo de la GPR y la operación dentro del BCIE, incluyendo todos los requerimientos que apoyan la documentación es preparada y desimanada por la GPR	Ningún instrumento de garantía disponible para los proyectos de ER	<p>El fondo de la garantía de ER es establecido dentro del BCIE durante el primer año del proyecto.</p> <p>Manuales de garantías operacionales de préstamos es realizado, y diseminado</p> <p>Los IFI familiarizados con el programa de garantía hacen uso de la documentación apropiada disponible</p>	<ul style="list-style-type: none"> <li>• APR del año 2010</li> <li>• Informes de Monitoreo</li> <li>• Entrevistas</li> </ul>	<p>Este resultado ha sido alcanzado parcialmente</p> <ul style="list-style-type: none"> <li>• El Proyecto ARECA logro que el BCIE apruebe un Manual de CGP simplificado y al alcance de SMREPs</li> <li>• La UCP ha diseminado este Manual en sus talleres de capacitación.</li> </ul>
Resultado 3.2					
Los SMREP identificado,	Proyectos de ER identificados,	Pocos proyectos de ER	5-10 proyectos financiados por	<ul style="list-style-type: none"> <li>• APR del año 2010</li> </ul>	Este resultado no ha sido alcanzado

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
evaluado y financiado	<p>evaluados y financiados.</p> <p>Mecanismo del GPR accedido</p> <p>Inversiones iniciadas</p>	financiado, y ninguno haciendo uso del fondo de garantía	el M de GPR para finales del año 3. El mecanismo de la GPR ha iniciado 80 millones de dólares en inversiones de SMREP para finales del proyecto	<ul style="list-style-type: none"> <li>• Informes de Monitoreo</li> </ul>	<ul style="list-style-type: none"> <li>• ARECA ha identificado SMREPs, teniendo un pipeline de proyectos a la fecha.</li> <li>• ARECA ha iniciado, mediante nuevos recursos humanos, el apoyo a la preparación del Info memo para los bancos de los proyectos identificados</li> <li>• Se ha logrado el financiamiento de un proyecto mediante la modalidad de "Project financing"</li> <li>• No hay ninguna GCPs adjudicadas en este momento.</li> </ul>
Resultado 3.3					
Replicación y estrategia de salida implementada	El BCIE exitoso en atraer otros inversionistas	No disponible	Del año 4, las partes interesados se dirigen al BCIE con una propuesta concreta para la recapitalización alrededor de 5 millones de dólares en un acuerdo firmado	<ul style="list-style-type: none"> <li>• APR del año 2010</li> </ul>	<p>Este resultado está en progreso</p> <ul style="list-style-type: none"> <li>• ARECA consiguió atraer exitosamente a capitales externos para expandir el fondo de GPC</li> <li>• Mayor impacto en este resultado podrá ser alcanzado si ARECA logra implementar exitosamente el instrumento de garantías parciales.</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
			para finales del proyecto		
Resultado 4:					
Evaluando, Aprendiendo y la administración adaptivas están aseguradas	El proyecto aplica las lecciones aprendidas y se adapta al ambiente cambiante, y así logrando su objetivo	No Disponible	El proyecto adapta su estrategia a la realidad de la región para lograr sus metas y objetivos	<ul style="list-style-type: none"> <li>• Informes de Monitoreo</li> <li>• APRs</li> <li>• Reportes periódicos de estatus</li> </ul>	<p><u>Pertinencia:</u></p> <p>La evaluación ha constatado que este resultado no solamente es válido, sino que mantiene relevancia al momento de la evaluación.</p> <p><u>Resultados Alcanzados:</u></p> <p>Este resultado está en vías de ser alcanzado.</p> <ul style="list-style-type: none"> <li>• El proyecto ARECA demostró que aplica técnicas de administración adaptativas al tomar recomendaciones de los informes de M&amp;E y aplicarlas</li> <li>• ARECA ha venido generando: El reporte de inicio (Inception Report), los reportes trimestrales (QPR), los planes operativos anuales (AWP), los reportes de avance del proyecto (PIR); así como, la auditoría externa anual propia del PNUD. Estas fuentes de información han estado a disposición del equipo administrador de ARECA y de la institución encargada de su</li> </ul>

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
					supervisión (PNUD). Además de estas herramientas de tipo empresarial, el Proyecto ha contado con el Marco Lógico del ProDoc. También se han pagado estudios de mercados regionales por sectores y una guía para la implementación de proyectos a nivel regional.
Resultado 4.1					
Un sistema compresivo de monitoreo de impacto de proyecto y sistema de análisis establecido	Información de alta calidad disponible para el gerente de proyecto, el equipo del	No Disponible	Análisis de la aplicación del proyecto  Las evaluaciones u auditorias	<ul style="list-style-type: none"> <li>• Informes de Monitoreo</li> <li>• APRs</li> <li>• Reportes periódicos de estatus</li> </ul>	<p>Este resultado ha sido alcanzado parcialmente</p> <ul style="list-style-type: none"> <li>• El proyecto tiene un calendario de actividades de M&amp;E</li> <li>• Si bien hay dos informes de M&amp;E realizados aun no se han cuantificado los indicadores.</li> <li>• Aún no se han hecho las medición por medio de la verificación del progreso del proyecto y el desarrollo (medido a base anual)</li> </ul>
Resultado 4.2					
Un sistema de administración adaptiva establecida para informar y ajustar la	Revisiones bianuales de la estructura lógica y la implementación de estrategias	No Disponible	Y mínimo anual de recomendaciones es realizada y tomada en	<ul style="list-style-type: none"> <li>• Informes de Monitoreo</li> <li>• APRs</li> <li>• Reportes periódicos de estatus</li> </ul>	Este resultado se está cumpliendo satisfactoriamente

Resultados	Indicador (cuantificado y sujeto a tiempo)	Línea Base	Metas	Fuente de Verificación	Pertinencia y Productos Alcanzados
implementación del proyecto basado en las lecciones aprendidas del sistema de monitoreo	basados en la información de los sistemas de monitoreo. Este proyecto adaptara el instrumento financiero si este no cumple con las expectativas		cuenta en la administración adaptiva.		<ul style="list-style-type: none"> <li>La PCU implementa las recomendaciones sugeridas en los informes de M&amp;E</li> </ul> <i>Ver sección 6.1.3</i>
Resultado 4.3					
Diseminación de información regional del proyecto, lecciones y mejores prácticas para el desarrollo de los SMREP y su financiamiento	Oportunidades para los accionistas de aprender sobre las experiencias regionales de los SMREP su desarrollo y financiamiento	No Disponible	Material disponible en el sitio web accedido por las partes interesadas	<ul style="list-style-type: none"> <li>Informes de Monitoreo</li> <li>APRs</li> <li>Sitio web del proyecto</li> </ul>	<p>Este resultado se va cumpliendo satisfactoriamente</p> <ul style="list-style-type: none"> <li>ARECA ha hecho talleres y eventos de diseminación orientados al desarrollo de SMERPs</li> <li>El material está incluido en el sitio web de ARECA</li> </ul>

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## ANEXO B: LISTA DE DOCUMENTOS QUE REVISARÁN LOS EVALUADORES

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A continuación se brindan los documentos con los que cuenta el Proyecto ARECA para su revisión:

- Informes del Proyecto:
  - Informe Financiero Mensual (AFIC-FACE)
  - Informe Trimestral (QPR)
  - Informe de Revisión de la Implementación de Proyectos (PIR)
  - Informe Anual (APR)
- Fondos del Proyecto:
  - Fondo de Asistencia Técnica no Reembolsable
  - Fondo de Garantías Parciales de Créditos

## ANEXO C: PREGUNTAS DE EVALUACIÓN

*Esta es una lista genérica a ser completada más adelante con preguntas más específicas por la OP y el Asesor Técnico regional del FMAM/PNUD según las circunstancias específicas del proyecto.*

Criterios de evaluación – Preguntas	Indicadores	Fuentes	Metodología
<b>Relevancia: ¿Cómo se relaciona el proyecto con los objetivos principales del área de interés del FMAM y con las prioridades ambientales y de desarrollo a nivel local, regional y nacional?</b>			
<ul style="list-style-type: none"> <li>• Cómo apoya el proyecto el área focal de cambio climático y las prioridades estratégicas del GEF?</li> </ul>	<ul style="list-style-type: none"> <li>• Existencia de una clara relación entre los objetivos del proyecto y el área focal de cambio climático del GEF.</li> </ul>	<ul style="list-style-type: none"> <li>• Documentos del proyecto.</li> <li>• Estrategias y documentos del área focal cambio climático del GEF.</li> </ul>	<ul style="list-style-type: none"> <li>• Análisis de documentos.</li> <li>• Entrevistas con personal del PNUD y del proyecto.</li> </ul>
<ul style="list-style-type: none"> <li>• Cómo el proyecto apoya las prioridades ambientales y de desarrollo energético a nivel nacional?</li> <li>• Cuál ha sido el nivel de participación de los interesados en el diseño del proyecto?</li> <li>• El proyecto toma en consideración las realidades nacionales (marco de políticas e institucional) tanto en su diseño como en su implementación?</li> <li>• Cuál ha sido el nivel de apropiación de los interesados/socios en la implementación del proyecto (sinergias institucionales)?</li> </ul>	<ul style="list-style-type: none"> <li>• Grado en el que el proyecto apoya acciones y movimientos nacionales en procura de un manejo sostenible del medio ambiente y del sector energético renovable.</li> <li>• Apreciación de interesados clave con respecto al nivel de adecuación del diseño e implementación del proyecto a las realidades nacionales y capacidades existentes.</li> <li>• Coherencia entre las necesidades expresadas por los interesados nacionales y el criterio PNUD-GEF.</li> <li>• Nivel de involucramiento de funcionarios gubernamentales, ONG's, IFI y otros socios en el proceso de diseño del proyecto.</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporación de nuevas iniciativas nacionales en energía renovable</li> <li>• Documentos del proyecto.</li> <li>• Socios e interesados clave del proyecto.</li> </ul>	<ul style="list-style-type: none"> <li>• Análisis de documentos.</li> <li>• Entrevistas con personal del PNUD y del proyecto.</li> </ul>

Criterios de evaluación – Preguntas	Indicadores	Fuentes	Metodología
<ul style="list-style-type: none"> <li>Existen vínculos lógicos entre resultados esperados del proyecto y el diseño del proyecto (en términos componentes del proyecto, elección de socios, estructura, mecanismos de implementación, alcance, presupuesto, uso de recursos, etc.)?</li> <li>Es la duración del proyecto suficiente para alcanzar los resultados propuestos?</li> </ul>	<ul style="list-style-type: none"> <li>Nivel de coherencia entre los resultados esperados y el diseño de la lógica interna del proyecto.</li> <li>Nivel de coherencia entre el diseño del proyecto y su enfoque de implementación.</li> </ul>	<ul style="list-style-type: none"> <li>Documentos del proyecto.</li> <li>Interesados clave del proyecto.</li> </ul>	<ul style="list-style-type: none"> <li>Análisis de documentos.</li> <li>Entrevistas con interesados clave.</li> </ul>
<b>Efectividad: ¿Hasta qué punto se han logrado los resultados y objetivos esperados del proyecto?</b>			
<ul style="list-style-type: none"> <li>Ha sido el proyecto efectivo en alcanzar los resultados esperados?</li> </ul>	<ul style="list-style-type: none"> <li>Ver indicadores en el marco de resultados estratégicos/marco lógico del proyecto.</li> </ul>	<ul style="list-style-type: none"> <li>Documentos del proyecto.</li> <li>Reportes de avance trimestral y anual.</li> <li>Equipo del proyecto e interesados clave.</li> </ul>	<ul style="list-style-type: none"> <li>Análisis de documentos.</li> <li>Entrevistas con interesados clave.</li> <li>Entrevistas con el equipo del proyecto.</li> </ul>
<ul style="list-style-type: none"> <li>Cómo se manejaron los riesgos y supuestos del proyecto?</li> <li>Cuál ha sido la calidad y/o alcance de las estrategias de mitigación desarrolladas (medibles en TCO2 anuales para los proyectos en operación)?</li> </ul>	<ul style="list-style-type: none"> <li>Integridad de la identificación de riesgos y supuestos durante la planeación y el diseño del proyecto.</li> <li>Calidad de los sistemas de información establecidos para identificar riesgos emergentes y otros “issues”.</li> </ul>	<ul style="list-style-type: none"> <li>Documentos del proyecto.</li> <li>Reportes de avance trimestral y anual.</li> <li>Equipo del proyecto, PNUD e interesados clave.</li> </ul>	<ul style="list-style-type: none"> <li>Análisis de documentos.</li> <li>Entrevistas.</li> </ul>
<ul style="list-style-type: none"> <li>Qué cambios pudieron haberse hecho (de haberlos) al diseño del proyecto para mejorar el logro de los resultados esperados?</li> </ul>	<ul style="list-style-type: none"> <li>Adaptaciones y cambios referidos</li> </ul>	<ul style="list-style-type: none"> <li>Datos colectados durante la evaluación.</li> </ul>	<ul style="list-style-type: none"> <li>Análisis de datos.</li> </ul>
<b>Eficiencia: ¿El proyecto se implementó de manera eficiente en conformidad con las normas y los estándares establecidos?</b>			
<ul style="list-style-type: none"> <li>Se utilizó o necesitó el manejo adaptativo para asegurar un uso eficiente de los recursos?</li> </ul>	<ul style="list-style-type: none"> <li>Disponibilidad y calidad de los reportes financieros y de progreso.</li> <li>Puntualidad y adecuación de los reportes entregados.</li> </ul>	<ul style="list-style-type: none"> <li>Documentos del proyecto.</li> <li>Equipo del proyecto.</li> <li>PNUD.</li> </ul>	<ul style="list-style-type: none"> <li>Análisis de documentos.</li> <li>Entrevistas claves.</li> </ul>

Criterios de evaluación – Preguntas	Indicadores	Fuentes	Metodología
<ul style="list-style-type: none"> <li>• Han sido utilizados como herramientas de gestión durante la implementación del proyecto el marco lógico, los planes de trabajo o cualquier cambio realizado a estos?</li> <li>• Han sido los sistemas financieros y contables adecuados para la gestión del proyecto y para producir información financiera precisa y a tiempo?</li> <li>• Han sido los reportes de progreso precisos y puntuales? Responden a los requerimientos de reporte? Incluyen los cambios por manejo adaptativo?</li> <li>• Ha sido la ejecución del proyecto tan efectiva como fue propuesta originalmente (planeado vs. actual)?</li> <li>• El cofinanciamiento ha sido según lo planeado?</li> <li>• Los recursos financieros han sido usados eficientemente? Han podido haberse usado más eficientemente?</li> <li>• Han sido las adquisiciones realizadas de manera que se haga un uso eficiente de los recursos del proyecto?</li> <li>• Cómo ha sido usado el enfoque de gestión basada en resultados durante la implementación del proyecto?</li> </ul>	<ul style="list-style-type: none"> <li>• Nivel de discrepancia entre el gasto planeado y el ejecutado.</li> <li>• Cofinanciamiento planeado vs. actual.</li> <li>• Costo en función de los resultados alcanzados en comparación con los costos de proyectos similares de otras organizaciones.</li> <li>• Cuán adecuadas han sido las opciones seleccionadas por el proyecto en función del contexto, la infraestructura y el costo.</li> <li>• Calidad del reporte de gestión basada en resultados (reportes de progresos, monitoreo y evaluación).</li> <li>• Ocurrencia de cambios en el diseño del proyecto o en el enfoque de implementación cuando ha sido necesario para mejorar la eficiencia del proyecto.</li> <li>• Costo asociado al mecanismo de delivery y estructura de gestión, en comparación con otras alternativas.</li> </ul>		
<b>Sostenibilidad: ¿Hasta qué punto se ha logrado la minimización de barreras financieras, institucional y / o riesgos ambientales socio-económico de los pequeños proyectos de energía renovable, para promover el sostenimiento de los resultados del proyecto a largo plazo?</b>			
<ul style="list-style-type: none"> <li>• Han sido integrados issues de sostenibilidad en el diseño e implementación del proyecto?</li> </ul>	<ul style="list-style-type: none"> <li>• Evidencia/ calidad de la estrategia de sostenibilidad.</li> <li>• Evidencia/ calidad de las acciones llevadas a cabo para asegurar la sostenibilidad.</li> </ul>	<ul style="list-style-type: none"> <li>• Documentos del proyecto.</li> <li>• Equipo del proyecto.</li> <li>• PNUD.</li> <li>• Socios.</li> </ul>	<ul style="list-style-type: none"> <li>• Análisis de documentos.</li> <li>• Entrevistas.</li> </ul>
<ul style="list-style-type: none"> <li>• El proyecto aborda adecuadamente los issues de sostenibilidad financiera y económica?</li> </ul>	<ul style="list-style-type: none"> <li>• Nivel y fuente de soporte financiero a ser provisto en el futuro a sectores y</li> </ul>	<ul style="list-style-type: none"> <li>• Documentos del proyecto.</li> <li>• Equipo del proyecto.</li> </ul>	<ul style="list-style-type: none"> <li>• Análisis de documentos.</li> <li>• Entrevistas.</li> </ul>

Criterios de evaluación – Preguntas	Indicadores	Fuentes	Metodología
	actividades relevantes después del término del proyecto. • Evidencia de compromiso de socios internacionales, gobiernos y otros interesados para apoyar financieramente sectores/actividades relevantes luego de la finalización del proyecto.	• PNUD. • Socios.	
• Existe evidencia de que los socios del proyecto darán continuidad a las actividades más allá de la finalización del proyecto? •Cuál es el grado de compromiso político para continuar trabajando sobre los resultados del proyecto?	• Grado en que las actividades del proyecto y los resultados han sido asumidos por las contrapartes. • Nivel de soporte financiero a ser provisto por el gobierno, una vez termine el proyecto.	• Documentos del proyecto. • Equipo del proyecto. • PNUD. • Socios.	• Análisis de documentos. • Entrevistas.
• Cuáles son los principales desafíos que pueden dificultar la sostenibilidad de los esfuerzos? • Se han abordado durante la gestión del proyecto? • Qué potenciales medidas podrían contribuir a la sostenibilidad de los esfuerzos logrados por el proyecto?	• Cambios que podrían significar desafíos al proyecto.	• Documentos del proyecto. • Equipo del proyecto. • PNUD. • Socios.	• Análisis de documentos. • Entrevistas.
<b>Impacto: ¿Hay indicios de que el proyecto ha contribuido a, o habilitados progreso hacia la participación de la banca regional en inversiones de energía renovable?</b>			
• Se prevé que el proyecto alcance su objetivo de consolidar la participación de instituciones financieras intermediarias del BCIE en inversiones para implementación de pequeños proyectos de energía renovable?	• Financiamiento disponible. • Efectividad de gestión de los financiamientos y garantías.	• Documentos del proyecto. • Equipo del proyecto. • PNUD. • Socios.	• Análisis de documentos. • Entrevistas.

**ANEXO D: ESCALAS DE CALIFICACIONES**

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<p><b><i>Calificaciones de resultados, efectividad, eficiencia, SyE y ejecución de AyE</i></b></p> <p>6: Muy satisfactorio (MS): no presentó deficiencias</p> <p>5: Satisfactorio (S): deficiencias menores</p> <p>4: Algo satisfactorio (AS)</p> <p>3. Algo insatisfactorio (AI): deficiencias importantes</p> <p>2. Insatisfactorio (I): deficiencias importantes</p> <p>1. Muy insatisfactorio (MI): deficiencias graves</p>	<p><b><i>Calificaciones de sostenibilidad:</i></b></p> <p>4. Probable (P): Riesgos insignificantes para la sostenibilidad.</p> <p>3. Algo probable (AP): riesgos moderados.</p> <p>2. Algo improbable (AI): Riesgos significativos.</p> <p>1. Improbable (I): Riesgos graves.</p>	<p><b><i>Calificaciones de relevancia</i></b></p> <p>2. Relevante (R)</p> <p>1.. No Relevante (NR)</p> <p><b><i>Calificaciones de impacto:</i></b></p> <p>3. Significativo (S)</p> <p>2. Mínimo (M)</p> <p>1. Insignificante (I)</p>
<p><b><i>Calificaciones adicionales donde sea pertinente:</i></b></p> <p>No corresponde (N/C)</p> <p>No se puede valorar (N/V)</p>		

## ANEXO E: FORMULARIO DE ACUERDO Y CÓDIGO DE CONDUCTA DEL CONSULTOR DE LA EVALUACIÓN

### Los evaluadores:

1. Deben presentar información completa y justa en su evaluación de fortalezas y debilidades, para que las decisiones o medidas tomadas tengan un buen fundamento.
2. Deben divulgar todos los resultados de la evaluación junto con información sobre sus limitaciones, y permitir el acceso a esta información a todos los afectados por la evaluación que posean derechos legales expresos de recibir los resultados.
3. Deben proteger el anonimato y la confidencialidad de los informantes individuales. Deben proporcionar avisos máximos, minimizar las demandas de tiempo, y respetar el derecho de las personas de no participar. Los evaluadores deben respetar el derecho de las personas a suministrar información de forma confidencial y deben garantizar que la información confidencial no pueda rastrearse hasta su fuente. No se prevé que evalúen a individuos y deben equilibrar una evaluación de funciones de gestión con este principio general.
4. En ocasiones, deben revelar la evidencia de transgresiones cuando realizan las evaluaciones. Estos casos deben ser informados discretamente al organismo de investigación correspondiente. Los evaluadores deben consultar con otras entidades de supervisión relevantes cuando haya dudas sobre si ciertas cuestiones deberían ser denunciadas y cómo.
5. Deben ser sensibles a las creencias, maneras y costumbres, y actuar con integridad y honestidad en las relaciones con todos los interesados. De acuerdo con la Declaración Universal de los Derechos Humanos de la ONU, los evaluadores deben ser sensibles a las cuestiones de discriminación e igualdad de género, y abordar tales cuestiones. Deben evitar ofender la dignidad y autoestima de aquellas personas con las que están en contacto en el transcurso de la evaluación. Gracias a que saben que la evaluación podría afectar negativamente los intereses de algunos interesados, los evaluadores deben realizar la evaluación y comunicar el propósito y los resultados de manera que respete claramente la dignidad y el valor propio de los interesados.
6. Son responsables de su rendimiento y sus productos. Son responsables de la presentación clara, precisa y justa, de manera oral o escrita, de limitaciones, los resultados y las recomendaciones del estudio.
7. Deben reflejar procedimientos descriptivos sólidos y ser prudentes en el uso de los recursos de la evaluación.

### Formulario de acuerdo del consultor de la evaluación<sup>19</sup>

**Acuerdo para acatar el Código de Conducta para la evaluación en el Sistema de las Naciones Unidas**

**Nombre del consultor:** \_\_\_\_\_

**Nombre de la organización consultiva (donde corresponda):** \_\_\_\_\_

**Confirmando que he recibido y entendido y que acataré el Código de Conducta para la Evaluación de las Naciones Unidas.**

Firmado en lugar el fecha

Firma: \_\_\_\_\_

## ANEXO F: ESBOZO DEL INFORME DE EVALUACIÓN<sup>20</sup>

- i. Primera Página:
  - Título del proyecto respaldado por el PNUD y financiado por el FMAM
  - Números de identificación del proyecto del PNUD y FMAM
  - Plazo de evaluación y fecha del informe de evaluación
  - Región y países incluidos en el proyecto
  - Programa Operativo/Programa Estratégico del FMAM
  - Socio para la ejecución y otros asociados del proyecto
  - Miembros del equipo de evaluación
  - Reconocimientos
- ii. Resumen Ejecutivo
  - Cuadro sinóptico del proyecto
  - Descripción del proyecto (breve)
  - Tabla de calificación de la evaluación
  - Resumen de conclusiones, recomendaciones y lecciones
- iii. Abreviaturas y Siglas  
(Consulte: Manual editorial del PNUD<sup>21</sup>)
1. Introducción
  - Propósito de la evaluación
  - Alcance y metodología
  - Estructura del informe de evaluación
2. Descripción del Proyecto y contexto de desarrollo
  - Comienzo y duración del proyecto
  - Problemas que el proyecto buscó abordar
  - Objetivos inmediatos y de desarrollo del proyecto
  - Indicadores de referencia establecidos
  - Principales interesados
  - Resultados previstos
3. Hallazgos  
(Además de una evaluación descriptiva, se deben considerar todos los criterios marcados con (\*)<sup>22</sup>)
- 3.1 Diseño y Formulación del Proyecto
  - Análisis del Marco Lógico (AML) y del Marco de Resultados (lógica y estrategia del proyecto; indicadores)
  - Suposiciones y Riesgos
  - Lecciones de otros proyectos relevantes (p.ej., misma área de interés) incorporados en el diseño del proyecto
  - Participación planificada de los interesados
  - Enfoque de repetición
  - Ventaja comparativa del PNUD
  - Vínculos entre el proyecto y otras intervenciones dentro del sector
  - Disposiciones de Administración
- 3.2 Ejecución del Proyecto
  - Gestión de adaptación (cambios en el diseño del proyecto y resultados del proyecto durante la ejecución)
  - Acuerdos de asociaciones (con los interesados relevantes involucrados en el país o la región)
  - Retroalimentación de actividades de SyE utilizadas para gestión de adaptación

<sup>20</sup> La longitud del informe no debe exceder las 40 páginas en total (sin incluir los anexos)

<sup>21</sup> Manual de estilo del PNUD, Oficina de Comunicaciones, Oficina de Alianzas, actualizado en noviembre de 2008

<sup>22</sup> Con una escala de calificación de seis puntos: 6: Muy satisfactorio, 5: Satisfactorio, 4: Algo satisfactorio, 3: Algo insatisfactorio, 2: Insatisfactorio y 1: Muy insatisfactorio. Consulte la sección 3.5, página 37 para conocer las explicaciones sobre las calificaciones.

- Financiación del proyecto:
- Seguimiento y Evaluación: diseño de entrada y ejecución (\*)
- Coordinación de la aplicación y ejecución (\*) del PNUD y del socio para la ejecución y cuestiones operativas

### 3.3 Resultados del Proyecto

- Resultados generales (logro de los objetivos) (\*)
- Relevancia (\*)
- Efectividad y eficiencia (\*)
- Implicación nacional
- Integración
- Sostenibilidad (\*)
- Impacto

### 4. Conclusiones, Recomendaciones y Lecciones

- Medidas correctivas para el diseño, la ejecución, seguimiento y evaluación del proyecto
- Acciones para seguir o reforzar los beneficios iniciales del proyecto
- Propuestas para direcciones futuras que acentúen los objetivos principales
- Las mejores y peores prácticas para abordar cuestiones relacionadas con la relevancia, el rendimiento y el éxito

### 5. Anexos

- TdR
- Itinerario
- Lista de personas entrevistadas
- Resumen de visitas de campo
- Lista de documentos revisados
- Matriz de preguntas de evaluación
- Cuestionario utilizado y resumen de los resultados
- Formulario de acuerdo del consultor de la evaluación

## ANEXO G: FORMULARIO DE AUTORIZACIÓN DEL INFORME DE EVALUACIÓN

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*(Para ser completado por la OP y el Asesor Técnico regional del FMAM/PNUD e incluido en el documento Final)*

Informe de evaluación revisado y autorizado por

Oficina en el país del PNUD

Nombre: \_\_\_\_\_

Firma: \_\_\_\_\_ Fecha: \_\_\_\_\_

ATR del FMAM/PNUD

Nombre: \_\_\_\_\_

Firma: \_\_\_\_\_ Fecha: \_\_\_\_\_

## Annex II

### Mission Itinerary

### MISSION ITINERARY

Date	Programme
24/11/2015	Arrive in Tegucigalpa
24/11/2015	Kick off meeting at UNDP offices
25/11/2015	Interview Stakeholders
26/11/2015	Travel to Guatemala City
26/11/2015	Interview Stakeholders
27/11/2015	Interview Stakeholders
28/11/2015	Travel to Tegucigalpa
30/11/2015	Interview Stakeholders
01/12/2015	Meetings with Project Team, interview stakeholders plus Mission wrap up at UNDP offices
02/12/2015	Depart Tegucigalpa

## Annex III

### List of persons interviewed

## List of persons interviewed

Name	Organization	Project Name	Country
Edo Stork Dennis Funes Mayelle Abudoj	UNDP	n.a.	Honduras
Luis Miguel Cardona Ondina Gutierrez Leslie Herrera MargieCastro	CABEI	ARECA	Honduras
Boris Arevalo Lucio Voto	Acqua Futura	Rio Blanco – Los Puentes hydro projects	Honduras
Yessenica Suyapa	Mancomunidad de los Municipios del Sur (NASMAR)	Santa Catarina –off grid PV project	Honduras
Douglas Oreste D'Vicente	Alcaldia Municipal de Namasigúe	Portillo del Guácimo - off grid PV Project	Honduras
Juan Carlos Eguigurems	Compañía Fuerza de Occidente	Quilio hydro project	Honduras
Edwin Castillo Juan Carlos Flores	Castillo Torres Energy	El Molo hydro project	Honduras
Juan Pablo Brol	CABEI	ARECA	Guatemala
María Mercedes Alvarez	Financiera de Occidente	IFI	Guatemala
Christian Colindres	Grupo Central Agrícola	Santa Ana biomass project	Guatemala
Edwin Rafael Méndez	Bantrab	IFI	Guatemala
Mario Loarca	Banrural	IFI	Guatemala
Juan Pablo Cordón	Peña Flor	Peña Flor hydro project	Guatemala
Marlon Dubon	BANPAIS	IFI	Honduras
Roberto Nuñez	Asociación Hondureña de Productores de Energía	NGO	Honduras
Wilmer Henriquez	Secretaría de MIAMBIENE	Government	Honduras
José Jalil	Banco LAFISE	IFI	
Osly Rodas	GIZ – 4E Programme	German government cooperation agency	Honduras
Otto Gutierrez	BCIE	Chief of Intermediate Loans and Strategic Funds	Honduras

## Annex IV

### List of documents reviewed

## **List of Documents Reviewed**

Prior to the start of the mission to Tegucigalpa and Guatemala City the following Project documentation was gathered and reviewed:

### **Project Documents**

- Project Identification Form (PIF)
- Project Document (PRODOC)
- Project Annual Progress Reports 2008-2014
- Project Implementation Reviews (PIR) 2008 – 2014
- Minutes of meetings of the Steering Committee
- Presentations to the Steering Committee
- Quarterly reports
- Mid Term Review

### **UNDP Documents**

- Honduras Development Assistance Framework 2007-2011 (UNDAF)
- Honduras Country Programme Action Plan (CPAP) 2007-2001
- Honduras Results Oriented Annual Reports 2009- 2014

### **GEF documents**

- GEF Focal area strategic programme objectives

During the mission to the Project office at CABEL in Tegucigalpa the following documents have been gathered:

- Co-financing – details of actual co-financing to date
- Approval process for the PRGs
- List of project events
- List of approved PRGs and TAs plus pipeline details
- Project Tracking Tool
- Financial data

## Annex V

### Evaluation Question Matrix

## Evaluation Question Matrix

Evaluative Criteria	Questions	Indicators	Sources	Methodology
<b>Relevance: How does the objectives of the project relate to the main objective of the GEF focal area and UNDP, and to the environment and development priorities of the local beneficiaries?</b>				
Is the project Relevant to the GEF priorities	<ul style="list-style-type: none"> <li>How does the project support the GEF focal area and strategic priorities</li> </ul>	<ul style="list-style-type: none"> <li>Existence of a clear relationship between the project objectives and GEF priorities</li> </ul>	<ul style="list-style-type: none"> <li>Project Documents</li> <li>GEF focal areas strategies and documents</li> </ul>	<ul style="list-style-type: none"> <li>Documents analyses</li> <li>GEF website</li> <li>Interviews with UNDP and project</li> </ul>
Is the project Relevant to UNDP priorities	<ul style="list-style-type: none"> <li>To which extent does the project correspond with the Country Project Action Plans of the various countries?</li> </ul>	<ul style="list-style-type: none"> <li>Priorities and work areas are incorporated</li> </ul>	<ul style="list-style-type: none"> <li>Project Documents</li> <li>National policies and strategies</li> </ul>	
Is the project relevant to Central America environment and sustainable development objectives?	<ul style="list-style-type: none"> <li>How does the project support the environment and sustainable development objectives of the countries involved?</li> <li>Is the project driven by the needs of the Central American countries?</li> <li>What was the level of stakeholder participation in project design?</li> <li>What was the level of stakeholder ownership in Implementation?</li> <li>Does the Project adequately take into account the national realities, both in terms of institutional and policy</li> </ul>	<ul style="list-style-type: none"> <li>Degree to which the project supports</li> <li>National environmental objectives</li> <li>Degree of coherence between the project and national priorities, policies and strategies</li> <li>Appreciation from national stakeholders with respect to adequacy of project design and Implementation to national realities and existing capacities</li> <li>Level of Involvement of government officials and other partners in the project design process</li> <li>Coherence between needs expressed by national stakeholders and UNDP-GEF Criteria</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>National policies and strategies</li> <li>Key project</li> <li>Partners.</li> </ul>	<ul style="list-style-type: none"> <li>Documents analyses</li> <li>Interviews with UNDP and project partners</li> </ul>
Is the project addressing the needs of target beneficiaries at the local and national and regional levels?	<ul style="list-style-type: none"> <li>How does the project support the needs of relevant stakeholders?</li> <li>Has the Implementation of the project been inclusive of all relevant Stakeholders?</li> <li>Were local beneficiaries and stakeholders adequately involved in project design and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Strength of the link between expected results from the project and the needs of relevant stakeholders</li> <li>Degree of involvement and inclusiveness of stakeholders in project design and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Project partners and stakeholders</li> <li>Needs assessment studies</li> <li>Project documents</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews with all relevant stakeholders</li> </ul>

Is the project internally coherent in its design?	<ul style="list-style-type: none"> <li>Are there Logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of Resources etc.)?</li> <li>Is the length of the project sufficient to achieve Project outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>Level of coherence between project</li> <li>Expected results and project design internal logic</li> <li>Level of coherence between project Design and project implementation approach</li> </ul>	<ul style="list-style-type: none"> <li>Program and Project documents</li> <li>Key project stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Key interviews</li> </ul>
How is the project relevant with respect to other UNDP / GEF-supported Activities?	<ul style="list-style-type: none"> <li>Are the GEF funding support activities and objectives not addressed by other donors?</li> <li>How do GEF-funds help to fill gaps (or give additional stimulus) that are necessary but are not covered by other donors?</li> <li>Is there coordination and complementarity between donors?</li> </ul>	<ul style="list-style-type: none"> <li>Degree to which program was coherent and complementary to other donor programming nationally and regionally</li> </ul>	<ul style="list-style-type: none"> <li>Documents from other donor supported activities</li> <li>Other donor representatives</li> <li>Project documents</li> </ul>	<ul style="list-style-type: none"> <li>Documents analyses</li> <li>Interviews with project partners and relevant stakeholders</li> </ul>
Does the project provide relevant lessons and experiences for other similar projects in the future?	<ul style="list-style-type: none"> <li>Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>
<b>Effectiveness: To what extent have/will the expected outcomes and objectives of the project been/be achieved?</b>				
Has the project been effective in achieving the expected outcomes and objectives?	<ul style="list-style-type: none"> <li>Has the project been effective in achieving its expected outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>See indicators in project document results framework and log frame</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>Project team and relevant stakeholders</li> <li>Data reported in project reports</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>
How have and are risks and risk mitigation being managed?	<ul style="list-style-type: none"> <li>How well are risks, assumptions and impact drivers being managed?</li> <li>What was the quality of risk mitigation strategies developed? Were these sufficient? Are they institutionalized for future learning and cooperation?</li> <li>Are there clear strategies for risk mitigation related with long-term sustainability of the project?</li> </ul>	<ul style="list-style-type: none"> <li>Completeness of risk identification and assumptions during project planning and Design</li> <li>Quality of existing information systems in place to identify emerging risks and other issues</li> <li>Quality of risk mitigations strategies developed and followed</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>UNDP, project team, and relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>
What lessons can be drawn regarding effectiveness for other similar projects in the future?	<ul style="list-style-type: none"> <li>What lessons have been learned from the project regarding achievement of outcomes?</li> <li>What changes could have been made (if any) to the design of the project in order to improve the achievement of the project's expected results?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout the evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>

How effectively funds from the program have been transferred to local partners and / or government?	<ul style="list-style-type: none"> <li>• Timely and transparent information on available funds</li> <li>• Timely disbursement</li> <li>• Correspondence between information on funds released and received amounts</li> <li>• Well defined (and respected) payment triggers</li> <li>• Relation to other (government) funds</li> </ul>	<ul style="list-style-type: none"> <li>• Track studies</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Energy,</li> <li>• Local partners / governments</li> <li>• Associations of NGOs</li> </ul>	
<b>Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?</b>				
Was project support provided in an efficient way?	<ul style="list-style-type: none"> <li>• Was adaptive management used or needed to ensure efficient resource use?</li> <li>• Did the project logical framework and work plans and any changes made to them use as management tools during implementation?</li> <li>• Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information?</li> <li>• Have progress reports been produced accurately, timely and responded to reporting requirements including adaptive management changes?</li> <li>• Was project implementation as cost effective as originally proposed (planned vs. actual)</li> <li>• Did the leveraging of funds (co financing) happen as planned?</li> <li>• Were financial resources utilized efficiently?</li> <li>• Could financial resources have been used more efficiently?</li> </ul>	<ul style="list-style-type: none"> <li>• Availability and quality of financial and progress reports</li> <li>• Timeliness and adequacy of reporting provided</li> <li>• Level of discrepancy between planned and utilized financial expenditures</li> <li>• Planned vs. actual funds leveraged</li> <li>• Cost in view of results achieved compared to costs of similar projects from other organizations</li> <li>• Adequacy of project choices in view of existing context, infrastructure and cost</li> <li>• Quality of results-based management reporting (progress reporting, monitoring and evaluation)</li> <li>• Occurrence of change in project design/implementation approach (i.e. restructuring) when needed to improve project efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• Project documents and Evaluations</li> <li>• UNDP</li> <li>• Project team</li> </ul>	<ul style="list-style-type: none"> <li>• Document analysis</li> <li>• Key interviews</li> </ul>
How efficient are partnership arrangements for the project?	<ul style="list-style-type: none"> <li>▪ To what extent partnerships/ linkages between institutions/ organizations were encouraged and supported?</li> <li>▪ Which partnerships/linkages were facilitated? Which ones can be considered sustainable?</li> <li>▪ What was the level of efficiency of cooperation and collaboration arrangements?</li> <li>▪ Which methods were successful or not and why?</li> </ul>	<ul style="list-style-type: none"> <li>▪ Specific activities conducted to support the development of cooperative arrangements between partners,</li> <li>▪ Examples of supported partnerships</li> <li>▪ Evidence that particular partnerships / linkages will be sustained</li> <li>▪ Types / quality of partnership cooperation methods utilized</li> </ul>	<ul style="list-style-type: none"> <li>▪ Project documents and evaluations</li> <li>▪ Project partners and relevant stakeholders</li> <li>▪ UNDP</li> <li>▪ Beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>▪ Document Analysis</li> <li>▪ Interviews</li> </ul>

Did the project efficiently utilize local capacity in implementation?	<ul style="list-style-type: none"> <li>Has an appropriate balance struck between utilization of international expertise as well as local capacity?</li> <li>Has the project taken into account local capacity in design and implementation of the project?</li> <li>Has there been an effective collaboration between institutions responsible for implementing the project?</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of expertise utilized from international experts compared to national Experts</li> <li>Number/quality of analyses done to assess local capacity potential and absorptive capacity</li> </ul>	<ul style="list-style-type: none"> <li>Project documents and</li> <li>Evaluations</li> <li>UNDP</li> <li>Beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>
What lessons can be drawn regarding efficiency for similar projects in the future?	<ul style="list-style-type: none"> <li>What lessons can be learnt from the project regarding efficiency?</li> <li>How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc.)?</li> <li>What changes could have been made (if any) to the project in order to improve its efficiency?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>
How effectively has program management implemented the work plans / updated plans to match modified conditions?	<ul style="list-style-type: none"> <li>Rate of delivery on the annual work plans?</li> <li>Achievements against targets (as set-out in the ProDoc and in the modified work plans if any)</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program reports,</li> <li>Work plans</li> <li>Project staff</li> <li>NGOs</li> </ul>	
To what extent have the GEF /UNDP regional office ensured oversight and guidance functions?	<ul style="list-style-type: none"> <li>Number of visits</li> <li>Existence of clear mechanisms / instruments to share information and provide feedback</li> <li>Sharing of lessons learnt</li> <li>Responsiveness to requests for TA</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program reports,</li> <li>Project staff,</li> <li>Regional office staff</li> <li>• NGOs</li> </ul>	
How well has monitoring and evaluation been linked to the management processes?	<ul style="list-style-type: none"> <li>Existence of baseline data</li> <li>Evidence that an ME systems are set-up and updated</li> <li>Evidence that the EMIS system is shared with NGOs</li> <li>Availability of up to date indicators of progress, regular and informative reports</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Data sources of M&amp;E unit, reports,</li> <li>Project staff,</li> <li>NGO staff</li> </ul>	

Are M&E data and reporting used to share / disseminate information and/or to inform strategic decisions?	<ul style="list-style-type: none"> <li>Quality, comprehensiveness and timeliness of reporting</li> <li>Degree of use of data from M&amp;E to inform investment decisions</li> <li>Degree of use of data and reports to enhance knowledge base of local and national policy makers</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Data system used by M&amp;E unit;</li> <li>M&amp;E reports;</li> <li>Interviews with M&amp;E and Project staff</li> <li>NGOs</li> </ul>	
How effective has Technical Advice been in supporting the program?	<ul style="list-style-type: none"> <li>Quality of technical reports</li> <li>Responsiveness of reports to program needs</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	
<b>Sustainability: How do the objectives of the project relate to the main objective of GEF focal area and UNDP, and to the environment and development priorities at the local beneficiaries?</b>				
Has the program been conducive to securing the supply of renewable electricity in utility scale grid connected based power systems?	<ul style="list-style-type: none"> <li>Are RE investments being planned?</li> <li>How many RE projects have been implemented, if any?</li> <li>Are the energy policies &amp; regulatory frameworks conducive to the implementation of RE projects in Central America?</li> <li>Has the project been successful in promoting market approaches for the supply of renewable electricity in utility scale grid-based power systems</li> <li>Does the type and amount of RE resources in Central America allow for the implementation of profitable RE generation projects?</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	
Strategy	<ul style="list-style-type: none"> <li>Which actions has the project put in place to guarantee the sustainability of the results?</li> <li>Which are the key challenges and risks that the project is facing to ensure the sustainability of the results?</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	
Financial sustainability	<ul style="list-style-type: none"> <li>How did the project address its financial and economic sustainability in the medium to long run?</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	
Institutional sustainability	<ul style="list-style-type: none"> <li>Is the institutional framework capacity adequate to support the implementation of third party renewable electricity generation investments in Central American countries?</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	

Catalytic Role: To which extent has the project demonstrated having a catalytic role in Central America or in other geographic areas?				
Scalability and replicability	<ul style="list-style-type: none"> <li>Have the results of the project been applied across the country or in other geographic areas?</li> <li>How can the country benefit from the results and lessons learned from the project?</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	
Impact: To which extent did the project achieve impact or advanced in achieving the expected results and impacts? Has there been unexpected situations?				
Impact	How has the project contributed to the expected impact with regard to: <ul style="list-style-type: none"> <li>Environment</li> <li>Economic wellbeing of the country</li> <li>Other socio economic aspects</li> </ul>	<ul style="list-style-type: none"> <li>Documentary analysis</li> <li>Interviews</li> </ul>	<ul style="list-style-type: none"> <li>Program documents</li> </ul>	

## Annex VI

### Example Questionnaire used for data collection

# Example Questionnaire used for data collection

Please answer all questions to the best of your abilities:

## A. Project Formulation /Design

- Conceptualization /Design (R): risks and assumptions
  - Explain some of the *inherent assumptions* in the original design. Are they correct? Examples include:
    - Scope of project vs. funding and capacity
    - Scale up possibilities
    - Sustainability- funding mechanisms, etc.
    - Capacities
    - others
  - Please provide an elaboration of the project conceptualization process to the best of your knowledge
  - Is the Log frame still appropriate?
  - Should baselines be added and indicator adjusted?
  - Does the risk matrix make sense and is it appropriate? Should it be upgraded? Is it used as management tool? How are risks mitigated?
  - How would you rate the design on a scale of 1-5? (with five being highest)
- Country ownership/Driveness
  - How do the government partners engage / interact with this project? Is the project a national priority? Why or Why not? What is the institutional home of this project? Is this the optimal home? What is the status of legislation supportive of the program expected outcomes? Are there enforcement mechanisms? Could the project be housed in another institution?
- Stakeholder participation in design:
  - Who are the key project stakeholders/beneficiaries? Describe how stakeholders were involved in the design process.
  - How would you rate the stakeholder participation on a scale of 1-5? (with 5 being the highest)
- Replication approach:
  - Does this project have a design / approach that can be replicated regionally, nationally or globally? Give evidence. Why or Why not?
- UNDP/GEF role:
  - Describe the UNDP Country office and GEF contribution in management and implementation.
- Linkages between project and other interventions within the sector
  - Describe the linkages between this project and other similar projects in the sector.
- Other aspects:
  - Provide your rating of project design on a scale of 1 – 5 (with five being the highest rating possible)

## B. Implementation/management approach:

- Does the Project management employ the logical framework as a management tool? Provide concrete examples.
- Provide concrete examples of Project management and stakeholders use of adaptive management, i.e. comprehensive and realistic work plans every year?.
- Please draw the current project management and implementation arrangements.
- Describe the general operational relationships between the various institutions involved and others and how these relationships have contributed to effective implementation and achievement of project outcomes.
- How would you rate the implementation approach on a scale of 1-5? (Five is the highest rating possible)

**C. Monitoring and Evaluation:**

- Did project staff or stakeholders undertake periodic oversight?
- How often does the Project Board and the Steering Committee meet?
- Can you please describe what evaluations and or studies you have conducted on aspects of project?
- Describe the systems and tools employed for M&E, i.e. log frame, baselines established.
- Project indicators: are there results and progress indicators? Describe data analysis process.
- List staff and designation of responsibilities with respect to M&E i.e. capacities and resources for M&E
- How would you rate the M&E on a scale of 1-5? (Five is the highest rating possible)

**C. Partnership strategies**

- Are partnerships appropriate and effective including the range and quality of partnerships and collaboration developed with government, civil society, donors, the private sector and whether these have contributed to improved delivery?.
- Which is the degree of stakeholder and partner involvement in the various processes related to the outputs and outcome?
- How could synergies be built with other projects within the sector?

**D. Stakeholder Participation and Implementation:**

- How is information generated and disseminated by the project?
- Please comment on the overall strengths and weaknesses of the approach adopted by the project regarding stakeholder participation and implementation.
- Please describe the process and result of the establishment of partnerships and collaborative relationships developed by the project with local, national and international entities. Describe the effect of these on project implementation.
- Describe the involvement of government institutions in project implementation, the extent of government support of the project.
- How would you rate the stakeholder participation and implementation on a scale of 1-5? (Five is the highest rating possible).

**F. Financial planning:**

- List activities and provide project cost by activity, outputs and activities (provide information to enable to allow an analysis of delivery by percentage)
- Describe the financial management (including disbursement issues),
- Describe the co-financing arrangements/agreements. Are they suitable?
- Has a project audit been conducted? What are the major findings? Do you agree?

**G. Describe in details the execution and implementation modalities:**

- Does National execution work or not?
- Describe the effectiveness of UNDP counterpart and project coordinators unit in participation in selection, recruitment, assignment of experts and national counterpart staff and in the definition of tasks and responsibilities.
- Are there any problems with the implementation i.e. current flow of staff in and out of the project, others?
- Describe the hiring process for Project staff- who is responsible for this? Are the donor and government partners involved?
- Describe the financial officer's roles? Does this work? Is it strategic and operational support toward project outcomes and for implementation?
- Does the project receive external technical backstopping and support from the wider partner knowledge network – why or why not?
- Do you think the procurement process is streamlined and efficient? What can be done to improve it? How does it affect overall implementation and expected results?
- What are some suggested improvements in the human resources situation?

## Annex VII

### Evaluation Consultant Code of Conduct Agreement

## Evaluation Consultant Code of Conduct Agreement Form<sup>23</sup>

### Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/ or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

### Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Alfredo Caprile

Name of Consultancy Organization (where relevant): n.a.

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Buenos Aires, Argentina on December 14, 2015

Signature:



<sup>23</sup> [www.unevaluation.org/unevaluation/codeofconduct](http://www.unevaluation.org/unevaluation/codeofconduct)

## Annex VIII

### Evaluation Report Clearance Form

**Evaluation Report Reviewed and Cleared by**

**UNDP County Office**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**UNDP GEF RTA**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_