

**GEF EO Terminal Evaluation Review Form**

1. PROJECT DATA				
GEF Project ID:	847		Review date:	
IA/EA Project ID:	PMIS 888	<b>GEF financing:</b>	<u>at endorsement</u> (Million US\$)	<u>at completion</u> (Million US\$)
Project Name:	Renewable Energy and Forest Conservation: Sustainable Harvest and Processing of Coffee and Allspice	IA/EA own:	0.75	0.75
		Government:	NA	0.00
		Other*:	NA	0.86
Country:	Nicaragua	<b>Total Cofinancing</b>	1.44	0.86
Operational Program:	12	<b>Total Project Cost:</b>	2.19	1.61
IA:	WB	<b>Dates</b>		
Partners involved:	Mesoamerican Development Institute (MDI)	Work Program date		NA
		CEO Endorsement		07/17/00
		Effectiveness/ Prodoc Signature (i.e. date project began)		10/03/00
		Closing Date	Proposed:	Actual:
		12/31/03	09/30/04	
Prepared by: Ines Angulo	Reviewed by: Neeraj Negi	Duration between effectiveness date and original closing: 27 months	Duration between effectiveness date and actual closing: 36 months	Difference between original and actual closing: 9 months
Author of TE: N.N		TE completion date: 12/06	TE submission date to GEF OME: 02/21/07	Difference between TE completion and submission date: 2 months

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

**2. SUMMARY OF PROJECT RATINGS**

Please refer to document "GEF Office of Evaluation Guidelines for the verification and review of terminal evaluations" for further definitions of the ratings.

	Last PIR	IA Terminal Evaluation	Other IA evaluations if applicable (e.g. IEG)	GEF EO
2.1 Project outcomes	S	No overall rating (2 components rated U, 1 rated S)	-	U
2.2 Project sustainability	N/A	U	-	U
2.3 Monitoring and evaluation	No rating	U	-	U
2.4 Quality of the evaluation report	N/A	N/A	-	HS

**Should this terminal evaluation report be considered a good practice? Why?**

Yes. This TE not only presents all required information, but it gives a concise and candid assessment of the unsatisfactory role of the WB and the grant recipient (MDI) in the project implementation and supervision.

**Is there a follow up issue mentioned in the TE such as corruption, reallocation of GEF funds, etc.?**

The President and Vice President of the Mesoamerican Development Institute (MDI) were also the President and Vice President of Solar Trade Corporation of Massachusetts, the manufacturer with the patent for the solar dryers. This fact was discovered during the project completion mission. This presents a potential conflict of interest as the original project design included the purchase of 10 solar dryers from the firm at a cost of US\$40,000 per solar dryer from the Solar Trade Corporation. MDI did not disclose this information to

the Bank during project preparation or project implementation.

### 3. PROJECT OBJECTIVES AND ACTUAL OUTCOMES

#### 3.1 Project Objectives

- **What were the Global Environmental Objectives of the project? Were there any changes during implementation?**

According to the Project documents the Global Environmental Objectives were:

1. Remove barriers to successful implementation of renewable energy technology for these agro-industrial applications, thereby reducing CO2 emissions and eliminating a significant contributor to deforestation: the use of wood to dry the coffee and allspice harvest
2. Reduce pressure on the natural habitats in the BOSAWAS Reserve through strengthening opportunities for sustainable land use management in its buffer zone

No changes during implementation.

- **What were the Development Objectives of the project? Were there any changes during implementation?**

According to the project documents the development objective of the project was to:

Promote the use of renewable energy in the development of biodiversity friendly agro-industrial processes in rural Nicaragua that will provide significant increases in revenue through value-added processes and direct exportation and marketing of coffee and allspice processed.

No changes during implementation.

#### 3.2 Outcomes and Impacts

- **What major project outcomes and impacts are described in the TE?**

The major project outcomes described in the TE relate to promoting the sustainable land use management in the BOSAWAS Reserve buffer zone. Significant planting of allspice and other tree species has been achieved (over 50,000 trees planted). Training in land use, plantation management, and crop diversification and cultivation was carried out in 14 communities and reached 54 families of the cooperative.

The project also had positive impacts on the institutional capacity of the cooperatives involved in project implementation. The assistance provided through the project was important in establishing the legal status for the cooperatives.

Additionally, the final biodiversity report, *An Evaluation of the Contribution of Cultivated Allspice (Pimenta dioica) to Biodiversity*, carried out by the project, has made a great contribution to the knowledge of human impact on local flora and fauna.

### 4. GEF EVALUATION OFFICE ASSESSMENT

#### 4.1.1 Outcomes (use a six point scale 6= HS to 1 = HU)

##### A Relevance

**Rating: S**

Outcomes of this project were relevant to Operational Program #6: promoting the adoption of renewable energy by removing barriers, and reducing implementation costs (Component 1-2-3-4), even though the project was not able to make any significant progress regarding these components.

The project outcomes were also relevant to Operational Program #3: promoting conservation of forest ecosystem (Component 4).

##### B Effectiveness

**Rating: U**

The project experienced difficulties in meeting the objective of promoting the use of renewable resources. The solar panels that were to provide electricity for the oil processing plant were found to provide insufficient electrical output and were judged inappropriate for the long rainy season that is typical for the area. The solar panels had to be replaced by a more powerful combustion engine that runs on diesel fuel or bio-fuels such as vegetable or palm oils. With regards to the coffee production, two of the original cooperatives withdrew from the project due to funding delays and fear of commitment to the leasing agreement for the solar dryers. At the end of the project only 1 dryer (out of the 10 originally planned) was installed, but it was not being used due to inconsistent quality of output, extended production time requirements, and other technical problems.

The project was more successful with its technical outreach efforts, reaching approximately 54 families in 14 communities of the BOSAWAS buffer zone. The techniques of sustainable farming, plantation management,

and harvesting have been adapted by most of the communities and have resulted in reduced pressure on the forest and natural habitats, and less encroachment into the reserve.

Overall, the achievements made by the project were only marginal compared to the expectations, and in addition, the project failed to foresee several technical problems that may lead to increased negative environmental impacts (included in the Sustainability section).

**C Efficiency (cost-effectiveness)**

**Rating: U**

Unforeseen complications in project design and implementation hindered the project's potential. Delays in project implementation greatly reduced the efficiency and achievement of outcomes. In addition, the TE concludes that project activities could have been carried out in a more cost-effective manner had the recipient been Nicaraguan-based and funds been managed in-country. Operational and travel costs for the grant recipient, along with transaction time for inter-institutional arrangements, resulted in high costs and caused unnecessary delays.

**4.1.2 Impacts**

According to the TE, while the project had relatively little impact on the promotion of renewable energy in agro-industrial production, it achieved some success in reducing agricultural impacts on the BOSAWAS Reserve. The techniques of sustainable farming, plantation management, and harvesting have been adapted by most of the communities and resulted in reduced pressure on the forest and natural habitats, and less encroachment into the reserve.

**4.2 Likelihood of sustainability.** Using the following sustainability criteria, include an assessment of **risks** to sustainability of project outcomes and impacts based on the information presented in the TE. Use a four point scale (4= no or negligible risk to 1= High risk)

**A Financial resources**

**Rating: MU**

Regarding the introduction of renewable energy technology to the agro-industrial applications, the only cooperative that had a solar dryer installed was considering returning it and free the cooperative of the remaining US\$28,000 in payments (of the lease) as provided in the agreement. The risk to financial sustainability of the project's renewable energy component is therefore high.

On the other hand, the Allspice component of the project has gathered a group of organizations interested in giving financial support to the cooperative which now meets regularly and is designing a second phase of the project. This means that the cooperative will potentially have access to necessary resources to establish itself, introduce the product to the market and become financially sustainable.

**B Socio political**

**Rating: L**

The project was able to create local producer alliances, which will allow each community to continue to work towards improving the production and marketing of their products. The TE also mentions that there was strong support from women in the communities, so the social risks of the project are low.

**C Institutional framework and governance**

**Rating: MU**

The TE mentions that while improvements were made in the hierarchy of decision-making, UNAG, PCaC, and both cooperatives each expressed frustration towards the grant recipient (Mesoamerican Development Institute, or MDI) with the division of responsibilities and sharing of information. National partners and local stakeholders viewed some of MDI actions as lacking transparency, which led to feelings of marginalization. It also mentions that the inclusion of a local counterpart in the marketing aspects of the project could have contributed to the project outcomes, increased sustainability, and made a significant institutional impact.

**D Environmental**

**Rating: U**

Due to the fact that the project failed to foresee several technical problems that may lead to increased environmental impacts, the risk to environmental sustainability of the BOSAWAS Reserve buffer zone and its communities has increased. New threats include: (i) water and soil contamination, as no arrangements were made to deal with the solid and liquid residues from allspice processing; (ii) the solar energy complement to the allspice processing equipment has been replaced by a combustion engine. The system now relies on vegetable oil or diesel fuel, which will increase air, soil, water, and noise pollution; and (iii) the proposed vegetable oil to run the equipment would be extracted from local palms; the effects of this on their population, and consequently on biodiversity and the environment, is unknown.

**4.3 Catalytic role**

**a. Production of a public good**

- The techniques of sustainable farming, plantation management and harvesting are now incorporated into the cooperative's methodology. This includes crop diversification, nursery production, and seed sharing.
- A study on the Relationship of allspice habitat and biodiversity measured in both the proposed sustainable production system and in its natural habitat in the buffer zone and BOSAWAS Reserve was conducted.

**b. Demonstration**

The San Isidro Cooperative has set an example for other coffee-producing cooperatives seeking certification

and has already spoken of this process and its achievement at national events.
<b>c. Replication</b> -
<b>d. Scaling up</b> -

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

<b>A. M&amp;E design at Entry</b>	<b>Rating (six point scale): S</b>
<p>The M&amp;E plan included in the Project Document incorporated activities to track key indicators such as the number of systems installed, amount of coffee and allspice processed and exported, and the corresponding estimated reductions in CO2 emissions through the use of solar drying systems, revenues and profits for the target cooperatives, as well as employment opportunities provided by the program and those afforded to women.</p> <p>The M&amp;E plan also included ongoing mapping, building on PDF baseline mapping activities, of area of reforestation with allspice trees and corresponding reduction of pasture within target zone; also tracking of the area and quality of allspice resource, change in habitat as compared to baseline, and variation in yields. Project monitoring and supervision was to be carried out by MDI on an annual basis, with the assistance of PCaC and Frontera Agricola.</p>	
<b>B. M&amp;E plan Implementation</b>	<b>Rating (six point scale): U</b>
<p>According to the TE, monitoring and evaluation of the project was unsatisfactory, both in terms of activities carried out by the grant recipient and by the WB. First, the project failed to obtain baseline values to monitor the project's global objectives indicators at the early stage of the project implementation.</p> <p>Second, the physical distance between the grant recipient in Massachusetts and the project sites in rural parts of northeastern Nicaragua created an especially challenging environment in which the project was to operate. The MDI Nicaragua representative was not responsible for monitoring project activities or project consultations.</p> <p>Finally, a Bank supervision mission to the MDI headquarters in Lowell, Massachusetts, found that their reporting system could not produce the full complement of financial monitoring reports. In addition, the Bank often had difficulty in obtaining timely responses to requests for information from the recipient.</p> <p>On the positive side, the project successfully trained cooperative members on monitoring activities required for obtaining the Coffee Certification, and timely and thorough annual reports were issued during the life of the project. Overall, there were many critical shortcomings in implementation of the M&amp;E plan.</p>	
<b>C.1 Was sufficient funding provided for M&amp;E in the budget included in the project document?</b>	
Yes. Land use and socio-economic monitoring was one of the components of the project and had a budget of US\$ 243,900.	
<b>C.2 Was sufficient and timely funding provided for M&amp;E during project implementation?</b>	
No. The TE mentions that the high costs for both MDI and WB to travel to the project site meant that supervision resources were inadequate to make more frequent missions.	
<b>C.3 Can the project M&amp;E system be considered a good practice?</b>	
<p>No. Project M&amp;E system was not implemented in its entirety and several factors have negatively affected it, including:</p> <ul style="list-style-type: none"> <li>- Grant recipient's administrative and financial capacity was inadequate for managing projects.</li> <li>- The organization responsible for overall M&amp;E activities (MDI) did not have a local representative and therefore M&amp;E was limited to sporadic visits and long distance coordination.</li> <li>- M&amp;E activities and information regarding project implementation was not openly shared with local stakeholders.</li> <li>- WB Task Managers relied on reports from the partner agency to verify progress made against project indicators; but these reports often conflicted with statements from local organizations.</li> <li>- The WB performance on project supervision was less than satisfactory. Only late in project implementation did the Bank realize that, apart from periodic visits from US-based staff, MDI's sole representation in country was the organization's legal advisor.</li> </ul>	

#### 4.5 Lessons and Recommendations

Project lessons and recommendations as described in the TE

<b>What lessons mentioned in the TE that can be considered a good practice or approaches to avoid and could have application for other GEF projects?</b>
<ul style="list-style-type: none"> <li>- It's important to do a recipient institutional assessment or financial management assessment prior to project approval. The lack of understanding of the grant recipient's capacity led to serious misunderstandings and disbursement delays that hampered the entire project.</li> <li>- Extra attention is needed when passing supervision from one task team leader to another. Furthermore,</li> </ul>

<p>evidence from other GEF-financed Medium-Sized Projects (MSPs) indicates that MSPs with (i) new partners and (ii) implemented in remote areas require increased supervision time.</p> <ul style="list-style-type: none"> <li>- Ownership is especially important in projects undertaken in remote areas where knowledge of local conditions and capacity is critical.</li> <li>- Procurement difficulties hampered project performance; the prior review process should have been more explicit in the Grant Agreement as well as in Operations Manuals for the project.</li> </ul>
<p><b>List (or if detailed summarize) the recommendations given in the terminal evaluation</b></p> <ul style="list-style-type: none"> <li>- To improve project performance, it is recommended that grant recipients be based in the country where project activities are being undertaken. The grant recipient for complicated projects requiring direct communication with stakeholders should be highly accessible and represented locally throughout project implementation.</li> <li>- Strong local support should be carefully incorporated into initial project design. This would ensure that information is shared, and would encourage the active participation of project beneficiaries.</li> <li>- Limitations of introduced technologies should be carefully examined before project implementation. In short, projects should not finance technologies whose local suitability and sustainability are in question. Furthermore, infrastructure limitations – particularly road access and communication in rural areas – should be assessed to determine if project design is feasible.</li> <li>- In the case where projects are undertaken in remote areas with difficult accessibility, the WB should consider having the country office be in charge of project supervision and not Washington HQ.</li> </ul>

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

<p><b>4.6.1 Comments on the summary of project ratings and terminal evaluation findings from other sources such as GEF EO field visits, etc.</b></p>
<p>N/A</p>

<b>4.6.2 Quality of terminal evaluation report</b>	<b>Ratings</b>
<p><b>A. Does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?</b> Yes. All impacts and outcomes are assessed, with particular emphasis on the project shortcomings.</p>	HS
<p><b>B. Is the report internally consistent, is the evidence complete/convincing and are the IA ratings substantiated?</b> The TE provides complete evidence on both the project achievements and failures.</p>	S
<p><b>C. Does the report properly assess project sustainability and /or a project exit strategy?</b> Yes. It includes information on sustainability for both the Coffee and Allspice components of the project; it also identifies replication potential and the level of stakeholder involvement.</p>	S
<p><b>D. Are the lessons learned supported by the evidence presented and are they comprehensive?</b> Yes. The TE includes a comprehensive and useful summary of lessons learned.</p>	HS
<p><b>E. Does the report include the actual project costs (total and per activity) and actual co-financing used?</b> The TE does include information on the actual project costs (total and per activity). It also identifies co-financer partners and the specific activities that were funded by them.</p>	HS
<p><b>F. Does the report present an assessment of project M&amp;E systems?</b> The TE assesses the M&amp;E system, identifies which indicators were used (and for which ones there was no information available), and provides a thorough explanation of the role of the MDI and WB in project supervision.</p>	S

**4.6.3 Assessment of processes affected attainment of project outcomes and sustainability.**

<p><b>Co-financing and Project Outcomes &amp; Sustainability.</b> If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability, and if it did affect outcomes and sustainability then in what ways and through what causal linkage did it affect it?</p>
<p>According to the TE, there is a difference of nearly \$500,000 between the planned and actual co-financing;</p>

<p>the main reason of this being that the \$400,000 credit line for cooperatives interested in purchasing Solar Trade Solar/Biomass Coffee Drying Systems was not used during project implementation. The TSFR2004 does mention that the purchase of equipment for the Allspice component was delayed due to problems processing the funds from the Inter-American Foundation.</p>
<p><b>Delays and Project Outcomes &amp; Sustainability.</b> If there were delays in project implementation and completion, then what were the reasons responsible for it? Did the delay affect the project's outcomes and/or sustainability, and if it did affect outcomes and sustainability then in what ways and through what causal linkage did it affect it?</p>
<p>Communication problems related to financial management and an understanding of the Bank's procurement policies led to disbursement delays from the Bank to the grant recipient, MDI. This led to further disbursement delays and a lack of project funds at the local level. Two of the original cooperatives withdrew from the project due to these funding delays and fear of commitment to the leasing agreement for the solar dryers.</p>

**4.7 Is a technical assessment of the project impacts described in the TE recommended?** Please place an "X" in the appropriate box and explain below.

<b>Yes:</b>	<b>No: x</b>
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Explain: TE has covered all the issues comprehensively and has provided sufficient evidence for its conclusions and ratings.

**4.8 Sources of information for the preparation of the TE review in addition to the TE (if any)**

PIR 2002, TSFR2004, Project Document