



FINAL REPORT OF ACTIVITIES
for the first implementation phase of the Increased Use of
Renewable Energy Resources Program

FENERCA



USAID-sponsored Leader
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Prepared by:

E+Co

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EXECUTIVE SUMMARY

Highlights

- 15 business plans completed
- US\$250,000 committed and/or invested by E+Co in three specific project proposals
- US\$2M in active investment consideration by local financial institutions
- 2 enterprises delivering new and clean energy services
- 1 additional project currently under construction
- Completion of one of the largest carbon emission transactions involving a Guatemalan hydroelectric company and the largest Dutch utility

During the first eighteen months of FENERCA's implementation (April 18, 2000 to October 18, 2001), E+Co in partnership with BUN-CA has achieved significant results. The following section presents the highlights of these results, plus the program's main conclusions and recommendations on course correction.

Main Results

Task CA1: Rapid Assessment and Final Work Plan Development

- Fully completed in August 2000, on schedule. The FENERCA team was organized, specific priorities identified and the program's Final Work Plan completed as part of this process. Explicit targets were established for all program-related tasks.
- A total of 537 surveys were distributed amongst project entrepreneurs, financial institutions and development organizations, exceeding the program's anticipated results (a target of 400 surveys). A 22% response rate was obtained.

Task CA3: Enterprise Development Services and Completion of Business Plans

- Ninety-two (92) projects at different stages of development were identified. These projects were analyzed, trimmed to 40 and then trimmed again to 20 project opportunities that would receive business plan preparation support.
- Although 20 projects were pre-selected, ongoing requests from local entrepreneurs resulted in a total of at least 24 enterprises supported with enterprise development services, including financial structuring, market assessment and business planning.
- In partnership with FOCER (a UNDP-GEF sponsored program), \$150,300 was leveraged UNDP/GEF in support of the implementation of 8 proof of concept or pilot projects. This experience substantially contributed to improve and demonstrate the projects' potential from a technical and financial perspective.
- 18 business plans were fully completed
- Two projects in El Salvador are currently in operation: Tecnosolar, a PV company with 1,200 photovoltaic solar home systems in the field and Empresa Eléctrica del Norte with 5 MW of biomass power potential. FENERCA provided enterprise development services in the form of financial structuring and helped secured financing from E+Co and other funders.
- As a result of FENERCA support and E+Co investment, Snow Mountain, a run-of-the-river micro-hydro project is currently under construction. The project will provide the Honduran grid with 250 kW of new, clean energy and its water supply

will be used to provide clean drinking water to 410 families in the community of San José de Oriente.

- At least two additional Honduran projects that received FENERCA support are close to reaching financial closure. It is expected that both will begin construction in early 2002, providing approximately 1.7 MW of new energy to the Honduran grid.

Task CA4: Strengthening of Financial Institution Capacity

- In close partnership with FOCER, six training sessions for financial institutions on renewable energy finance were held in each of the targeted countries (two in the case of Honduras).
- Targeted training material on business plan development and risk analysis for renewable energy projects was developed, translated and distributed.
- 59 financial institutions (commercial banks and other financial intermediaries) were trained.
- As a result of Task CA4 activities, the FENERCA team was able to increase the level of interest of local financial organizations in renewable energy projects. Approximately US\$ 2,000,000 in potential financing is currently being confirmed and/or arranged with local financial institutions, including the Central American Bank for Economic Integration and Banco Agrícola Comercial, to finance projects prepared under FENERCA.

Task CA5: Capacity Building for the Finance Sector on Smaller Scale and Rural Energy Applications

- Also in partnership with FOCER, five training sessions for entrepreneurs, NGOs and government officials on sustainable energy for development organizations were prepared, organized and held. At least US\$20,000 was leveraged from FOCER to develop these activities.
- More than 150 entrepreneurs, NGOs and government officials were trained as a result of this task.
- Specifically, 18 project deals were structured as a result of this task as well as of Task CA3. The training and tools provided through these training sessions enabled local entrepreneurs to structure concrete project deals and, with E+Co and BUN-CA's support, undertake the necessary financial analysis to prepare their projects for investment.

Task CA6: Organizing of Next-Stage Financing

- E+Co committed US\$275,000 (out of US\$230,000 originally committed) as part of FENERCA in renewable energy deals in El Salvador and Honduras. These investments were a direct result of FENERCA's training efforts and enterprise development services within Tasks CA4 and CA5, which translated into stronger entrepreneurial capacity and sound projects. FENERCA's additional efforts at the policy level under Task CA7, which involved targeted conversations with local energy authorities concluded with the speedy approval of the necessary power purchase agreements for numerous project deals preliminary selected by the FENERCA team for support. These deals are currently being submitted to E+Co and other funders for possible investment.

Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects

- A targeted document on the main policies and barriers to renewable energy project implementation in Central America was drafted, edited, translated and distributed amongst key energy stakeholders in the five target countries.

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- In September 2001 FENERCA convened a high-level meeting of six senior level representatives from the Energy Ministries of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama to review the program's policy document. The energy directors discussed the major barriers to the development of renewable energy projects and identified concrete mechanisms to address these barriers and further development and investment in renewable energy projects in the region. The meeting provided a unique opportunity to discuss current policy trends in Central America and to solicit input from the senior level representatives on potential barrier removals. As a result of this activity, local regulatory authorities strengthened the work they are currently undertaking in the energy field. FENERCA was key in showcasing international regulatory frameworks within the renewable energy sector.
- Joint activities under Tasks CA3, CA4, CA6 and CA7, resulted in the structuring of specific projects and the subsequent approval of their PPAs from the electric utility in Honduras. A total of 18 PPAs were approved in this country throughout FENERCA's first implementation phase. As a result of all these preparatory activities, E+Co was able to approve investment in 3 of these new small hydro projects (Hydro Yojoa, 630 kW; Snow Mountain, 500 kW and La Esperanza, 1.4 MW).

Task CA8: Facilitation of Carbon Transactions

- With the support of FENERCA's in-country representatives, the program team gathered key information on fuel mixes in the five target Central American countries and developed a specific approach on how to calculate carbon emission reductions for renewable energy projects.
- FENERCA staff was trained on carbon emission reductions and provided with basic carbon calculation skills. The training built on the knowledge and expertise of Fundación Solar, a Guatemalan energy NGO. As a result of the meeting, the FENERCA team was able to standardize its carbon calculation approach and identify and analyze three projects for carbon analysis.
- Exceeding the anticipated results, FENERCA was able to analyze and prepare a total of seven projects for carbon sale.
- In partnership with EcoSecurities, a leading carbon brokerage firm, E+Co was able to complete the first international green certificate transaction involving assets in a developing country. The transaction involved Hidroelectrica Papeles Elaborados (HPE) a hydroelectric project supported by FENERCA under Tasks CA3 and CA8 in Guatemala, and Nuon, the largest electricity distributor in the Netherlands. Nuon committed to purchase 100% of HPE's 8.2 MW carbon emissions for the next ten years. The carbon certificates will be used by Nuon as part of its green energy products. The transaction is one of the largest green certificate transactions to date.

Task CA9: Support and capacity Building for BUN-CA

- A total of US\$54,000 provided to BUN-CA as working capital.
- As anticipated, BUN's network was expanded in the Central American region, and 14 NGOs are currently working as part of the organization.
- At least 500 person-hours of training in business plan development and RE financial engineering was received by BUN-CA, in addition to "on the ground" project preparation activities.
- A detailed organizational and programmatic Business Plan was prepared by BUN-CA.

Task XC1: Off-Grid Services Manual

- A manual on off-grid business models was prepared, translated and edited by the FENERCA team. The manual provides a step by step guide on how to appraise the technical and market feasibility of an off-grid renewable project. 300 copies are currently being distributed amongst project entrepreneurs and key stakeholder groups throughout the Central America region.

Task XC2: Carbon Manual for Entrepreneurs

- A carbon manual for renewable energy entrepreneurs that provides a carbon calculation instrument to appraise emission reductions linked to renewable energy projects was prepared, translated and edited by the FENERCA team. The carbon calculators address the specific fuel mixes of FENERCA's five target countries in Central America. 200 copies are currently being distributed amongst project entrepreneurs and key stakeholder groups throughout the Central America region. The possibility of adapting this document for distribution through the United Nations Foundation Program in Africa and Brazil is under consideration.

Task XC3: Monitoring and Evaluation Manual

- A Monitoring and Evaluation Manual for Renewable Energy Projects has been concluded in its draft form. A final version is under development by E&Co.

Task MME: as initially anticipated, a program-specific management and supervision tool was developed at FENERCA's inception. Quarterly reports have been gathered on a systematic basis. The information collected through these reports has provided the FENERCA management team with key information on the program's performance and has been utilized to implement course correction and improvement measures and to fulfill USAID's reporting requirements.

Other unanticipated results:

- Task XC3a: a Business Plan Development Manual for Renewable Energy Entrepreneurs was developed by E+Co, building on substantial contribution of materials from the United Nations Foundation/UNEP/E&Co "Africa Rural Energy Enterprise Development" program in Africa. Approximately 25 copies of the manual were distributed amongst energy entrepreneurs. The manual is still a "work in progress" to be refined in the upcoming months.
- Leverage: FENERCA has been able to leverage approximately US\$300,000 from other renewable energy initiatives currently undergoing, including:
 - a. FOCER: a Central American initiative for the "Creation and Strengthening of the Capacity for Sustainable Renewable Energy Development in Central America", sponsored by UNDP/GEF and managed by BUN-CA. Approximately US\$118,000 in program support and US\$150,300 in project specific support have been leveraged from this initiative.
 - b. AREED: Africa Rural Energy Enterprise Development program, sponsored and co-managed by the UN Foundation, UNEP and E+Co. Approximately US\$70,000 have been leveraged from this program.
- Marketing strategy: a FENERCA website was developed and has been in use since the beginning of July 2000. It includes targeted surveys, contact information, and the program's main goals and anticipated results. The address is www.energyhouse.com/spanish/fenerca. A FENERCA brochure was developed, including specific contact information and general program details. 1000 pamphlets in Spanish were printed and distributed since September 2000.

Conclusions & Recommendations on Course Correction

Overall, throughout its first eighteen months of implementation, FENERCA was able to accomplish and in most times exceed the program's originally anticipated results. Overall, more than 95% of the initially foreseen activities were fully completed. The main areas of improvement are as follows:

- Further business plan updates, refined financial engineering and in some cases, technical assistance funds to make projects stronger face to potential investors, are required in order to increase the possibilities of FENERCA projects to secure next-stage financing.
- As part of the training activities under Tasks CA4 and CA5, focus on concrete project proposals to guarantee adequate risk assessment and ensure proper transfer of risk analysis and project structuring techniques among local financial institutions and entrepreneurs.
- FENERCA's efforts to secure funding both in the pre-investment and investment phases must continue and expand.
- In order to build on the level of awareness for renewable energy projects raised within the policy framework and initiate concrete policy changes, focus on one or two target policies and countries where the regulatory environment is more favorable.
- Continue use of the carbon instruments built as part of FENERCA to further strengthen the program's project structuring and financing work.
- Continue partnership with BUN-CA and ensure further capacity building by structuring specific project deals jointly both in the target countries as well as in Costa Rica, where FENERCA's main implementation team is located.
- Conclude and distribute XC3 Manual (Project Monitoring and Evaluation), update XC3a (Business Plan Development Manual) and expand distribution list for Off-Grid and Carbon Manuals.
- Further involve FENERCA's management team in the reporting and analyses of quarterly results, to improve the program's MME tool and to use the program's results as a marketing instrument among potential partners and funders.

INTRODUCTION

The Increased Use of Renewable Energy Resources Program for Central America is being implemented by E+Co, in close partnership with the Biomass Users Network of Central America (BUN-CA) and PA Consulting (formerly Haggler Bailly). The program aims to assist five countries in the region (Guatemala, El Salvador, Honduras, Nicaragua and Panama) set a course that integrates environmental and economic sustainability into their energy development agenda. FENERCA (Financiamiento de Empresas Energéticas en Centroamérica), as the program has been titled considering cultural and language characteristics of the region, has been undertaken over a first phase of eighteen months period (April 18, 2000 –October, 2001). In October 2001, FENERCA was extended for an additional eighteen months (through April 18, 2003).

The present report is FENERCA's "First Final" Report (or sixth quarterly report), and is being provided in accordance with the guidelines established in Attachment 1, Paragraph E, numeral 3, "Final Reporting", of USAID's Leader with Associates Cooperative Award, Number LAG-A-00-00-00008-00. The report presents the information in accordance with 22CFR 226.51 (d) and complies with the submission criteria contained in ADS 540.5.2d-g, as requested in FENERCA's original contract. It describes all development activities generated from April 28th 2000 to October 18th, 2001.

As highlighted throughout the present document, FENERCA's first eighteen months of implementation were characterized by an efficient and timely achievement of the program's anticipated tasks. As described hereby, a key component of this success was E+Co's partnership with BUN-CA and this organization's parallel implementation of the UNDP/GEF- sponsored FOCER ("Capacity Building for Renewable Energy in Central America") program. Supported by GEF's Operational Program # 6 on Climate Change, FOCER co-sponsored numerous FENERCA activities and, while advancing early-stage policy and project preparation activities, it substantially contributed to FENERCA's project development agenda.

The specific results obtained throughout the past eighteen months of implementation are provided in detailed in each of the following sections. The information has been organized by task, supplying both quantitative and qualitative data on the work advanced within each activity. Although specific comments on the work achieved and recommendations on improvements and course corrections are included in each section, final recommendations have also been provided in Section 12.

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1. Task CA1: Rapid Assessment and Final Work Plan Development

Main Results

Expected Results Month 0 – Month 4 (April – August, 2000)	Results Achieved	Prevailing work
Preparation and distribution of surveys and other targeted outreach aimed at collecting information about stakeholder needs.	<ul style="list-style-type: none"> <input type="checkbox"/> 3 surveys prepared for entrepreneurs, financial institutions, and NGOs and non-traditional financial institutions <input type="checkbox"/> 537 surveys distributed, exceeding anticipated results (which targeted 400 surveys). <ul style="list-style-type: none"> - 188 surveys to entrepreneurs - 142 to FIs - 207 to NGOs 	None.
25% response expected from surveys distributed	22% response rate achieved (116 surveys were answered)	None
Minimum of 20 projects identified	<input type="checkbox"/> 95 projects identified	Ongoing project identification activities efforts to continue as applicable.
Minimum of 25 stakeholders consulted	<ul style="list-style-type: none"> <input type="checkbox"/> Five country-specific missions undertaken <input type="checkbox"/> Meetings held with 80 different stakeholders (public and private organizations, NGOs and FIs). 	On-going consultations to take place throughout program implementation.
Development and preparation of final work plan	<input type="checkbox"/> Final Work Plan completed August 2000.	None.
Survey of policies and barriers that need attention	<input type="checkbox"/> Draft policy document completed August 2000.	Ongoing consultations to continue as needed.
Initial review of policies that need attention	<input type="checkbox"/> Review of policies concluded March 31 st , 2001	None.
Initial review of policies and barriers to be addressed in CA7	<input type="checkbox"/> Initial review completed in December 2000.	None.
Initial review and analysis of training gaps	<ul style="list-style-type: none"> <input type="checkbox"/> Main training gaps identified through surveys. <input type="checkbox"/> Analysis concluded in August 2000. 	None.
Inventory of training gaps	<input type="checkbox"/> Inventory and database concluded in August 2000.	None.

As initially scheduled by FENERCA's management team, 100% of the work originally anticipated in Task CA1 was completed on August 23rd, 2000. Overall, the FENERCA team exceeded the Task's anticipated results, by completing a number of activities ahead of time and exceeding initial targets, including:

- a. Organizing the program's implementation team, including E+Co-LAC and Bloomfield staff, BUN-CA personnel and in-country representatives in each of the five target countries.

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- b. Reaching a larger than anticipated number of entrepreneurs, government organizations and financial institutions and identifying a larger than anticipated number of projects and entrepreneurs willing to received FENERCA's assistance.
- c. Conducting a training session for financial institutions and entrepreneurs in Honduras (July 2000). This activity had initially been scheduled to advance upon the conclusion of FENERCA's assessment phase under Tasks CA4 (Strengthening of Financial Institution Capacity) and CA5 (Capacity Building for the Finance Sector on Smaller-Scale and Rural Energy Applications) in the program's second quarter of implementation.

As part of the anticipated work advanced in this task, BUN-CA and E+Co developed targeted questionnaires and reached more than 500 stakeholders at the local level. The organizations updated their contact lists for the five target countries, accounting for about 600 records. These contacts included public agencies, project developers, NGOs, service companies, consultants and financial institutions.

Additionally, targeted meetings were held with USAID's local missions in the five countries to introduce FENERCA and discuss their interest in participating in the program. Targeted meetings were held with:

- *USAID Mission-Honduras*: Mr. Peter Hearne, Environmental Officer.
- *USAID Mission-El Salvador*: Ing. Flor de Rivera, Environment and Water Office, Ms. Heidi Gomez and Mary Latino de Rodriguez from the Environment and Water Office.
- *USAID Mission-Guatemala*: Mr. George Carner, Director, Marta Velazquez, Director of Regional Trade Office, Brian Rudert, Income and Natural Resources, Karin MacFarland, Coordinator of TEA/Mitch Energy, Zoyla Letona, Energy and Infrastructure Department.
- *USAID Mission-Nicaragua*: Dr. Efrain Laureano, Reconstruction Program, Mission Economist, supervisor of energy projects.
- *USAID Mission-Panama*: Mr. Lars Klassen, Director, Lee Russell, Development Sustainable Director, Mr. Half Cardwell, Nilka de Varela, Specialist on Project Administration, Sergio Claire, Senior Water & Environmental Manager,

Prevailing Work

As previously stated, 100% of the anticipated work under Task CA1 was fully completed in August 2000. Based on the work advanced throughout this task as well as on the results accomplished in the past eighteen months, the BUN-CA E+Co team will define a targeted work program for FENERCA's second implementation phase (October 2001-March 2003). Further outreach to local entrepreneurs, financial institutions, government organizations, and especially to local USAID missions in Central America and in new markets is being anticipated.

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2. Task CA3: Enterprise Development Services and Completion of Business Plans

Main Results

Expected Results Quarter 2 – Quarter 6 (and beyond)	Results Achieved at July, 2001	Results achieved at October, 2001	Prevailing work
200 enterprises contacted	537 surveys distributed among different stakeholders and approximately 330 enterprises contacted.	Same	None.
20 enterprises or projects supported	24 projects and enterprises supported: 2 El Salvador 8 Guatemala 9 Honduras 3 Nicaragua 2 Panama	Same. At least 24 enterprises and projects have been supported, while 20 were targeted to specifically receive business plan development support.	Business plan development support to be provided through the distribution of Task XC3a Manual. On-going support to projects and activities currently undergoing.
15-20 business plans or proposals ready for next stage FI's	TOTAL of 7 business plans completed.	TOTAL of 15 business plans completed.	The team anticipates further refining at least 7 business plans currently undergoing and supporting at least 5 new enterprises as part of FENERCA's second implementation phase.
Over US\$500,000 of enterprise development support provided (with CA6)	US\$196,415 provided in EDS as of June 30, 2001 (CA3& CA6).	US\$225,000 provided in EDS as part of Tasks CA3 & CA6, An additional US\$123,000 as part of CA4 & CA5 and US\$42,400 as part of CA8. Total EDS provided = US\$390,090.	Further EDS support to continue throughout program execution.
US\$10 M project and enterprise value	Currently, total value of projects in pipeline is approximately US\$120,000,000.	Approximate total value is US\$95,025	Total value to be modified as additional projects are included in the pipeline.
Minimum leverage ratio of 20:1	To be determined.	Approximate potential leverage ratio is 53:1.	Final value expected to increase as further emphasis is put on next stage financing.
Minimum 2 enterprises in each country	At least 2 enterprises are currently being supported in each of the countries.	Same	Same
Every effort to represent 5 RE technologies	The 5 targeted technologies are being represented in the target list of projects.	Same	Same

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One of the key results of task CA1, was the identification of a larger than expected number of projects and entrepreneurs seeking enterprise development assistance. The team initially identified 92 projects that needed financial and business structuring support and was therefore obliged to trim down the original list to address the budget restrictions linked to the program. Although a final list of 20 projects was developed to focus the team's business development efforts, at least 5 additional projects were supported during the program's first eighteen months of implementation with some kind of enterprise development assistance. This included brokerage and negotiation support as well as financial structuring. A brief description of the projects supported is included in Annex 1.

Out of the 24 projects that received enterprise development services, 15 were able to complete a business plan. These included:

a. BP completed as of April 18, 2001 (submitted to USAID for review as part of FENERCA's annual report):

- Snow Mountain (Honduras)
- Hydro Yojoa (Honduras)

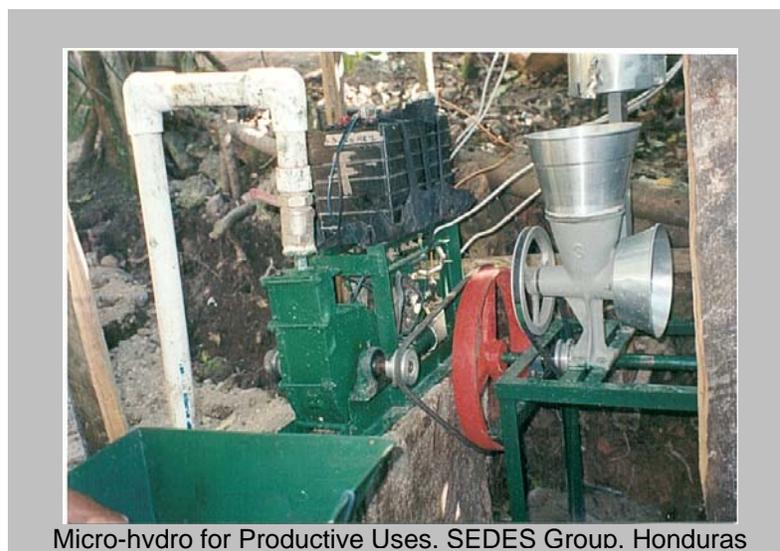
b. BP completed as of July 18, 2001:

- San Judas Hydro (Guatemala)
- Tecnosolar (El Salvador)
- Empresa Eléctrica del Norte (El Salvador)
- ADEMIPP (Panama)

c. BP completed as of October 18, 2001

- La Esperanza
- ATDER
- Selmecca
- Tecnosol
- Tres Valles Co-Gen
- Ancon
- SEDES
- Atlantis
- Jones

Copies of the business plans completed as of July 18 were submitted for USAID consideration as part of FENERCA's third quarterly and annual reports, while those concluded as of October 2001 are included in the present report as part of Annex 2.



Considering the requests received at the program's inception and the level of effort required to transform preliminary project ideas into concrete business proposals the results achieved during the past eighteen months are noteworthy both in terms of project structuring as well as regarding pipeline development. Some of the program's main achievements during these first months of implementation include:

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1. As a result of the E+Co/BUN-CA partnership, projects supported by FENERCA also leveraged US\$150,300 in grant support and technical assistance from FOCER. This support was key to enable the projects to accumulate practical experience and to initiate (at least on a start-up basis) the provision of energy services to unserved communities. The projects that received BUN-CA/FOCER support and their current status is as follows:

Project	Technology	Country	Status	FOCER Support	Potential Generation
Hydro Yojoa	Hydro	Honduras	Business plan concluded	US\$23,000	630 kW
Sedes	Hydro	Honduras	3 systems installed	US\$16,000	0.5-3 kW per system
Tres Valles	Co-gen	Honduras	Business Plan concluded	US\$15,000	15 MW
San Marcos	Wind/Hydro	Guatemala	Business Plan in progress	US\$19,000	4.2 MW
Tecnosol	PV	Nicaragua	1 PV system was installed for illumination at a health center	US\$21,000	1,700 W
ATDER	Hydro	Nicaragua	Prototype design being finalized/ Business Plan concluded	US\$20,800	1-3 kW per system
ADEMIPP	PV	Panama	Pilot system was installed/ Business Plan for 500 systems concluded	US\$14,500	300W per system
ANCON	PV	Panama	System design concluded/ Business Plan finalized	US\$21,000	1,200 W

2. Of the projects supported throughout the program's first eighteen months of implementation, 2 are currently in operation, 3 in their pilot phase, 11 are currently attracting financing and moving to financial closure, 4 are under construction and 4 are still at an early development stage. The projects in which FENERCA focused its efforts during its initial implementation phase are as follows:

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Project/ Country	In Operation	Pilot Phase	Investment/ Financial Closure	Under construction
Tecnosolar (El Salvador)	X			
Empresa Eléctrica del Norte (El Salvador)	X			
San Judas (Guatemala)			X	
Chan Chan (Guatemala)			X	
Jones (Guatemala)			X	
Geoteca (Guatemala)			X	
San Marcos Wind (Guatemala)			X	
San Marcos Hydro (Guatemala)			X	
Selmecca (Guatemala)			X	
Hydro Yojoa (Honduras)			X	
Tres Valles Co-Gen (Honduras)			X	
Snow Mountain (Honduras)				X
Atlantis (Honduras)			X	
La Esperanza (Honduras)			X	
SEDES (Honduras)			X	
Bronzeoak (Nicaragua)			X	
Tecnosol (Nicaragua)			X	
ATDER (Nicaragua)		X		
Ademipp (Panama)		X		
Ancon (Panama)		X		

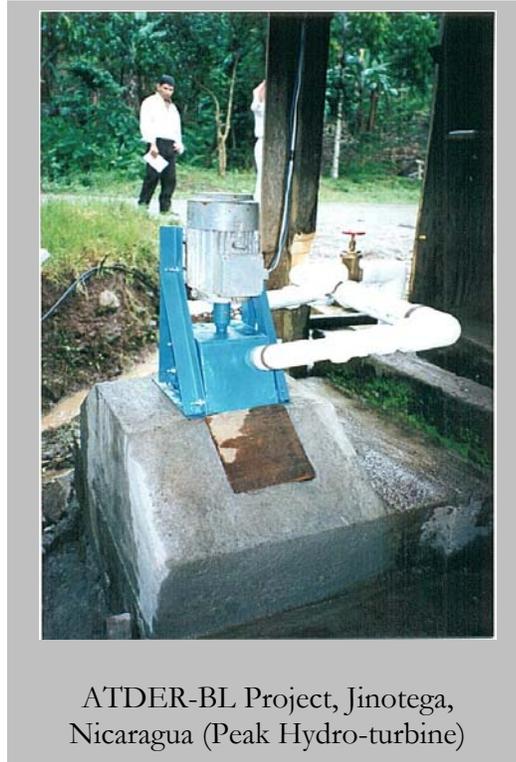
Overall, the projects in operation translate into a total of 1200 solar home systems installed (375 kWh/day from Tecnosolar) and a 5MW biomass installation in El Salvador (EEN). The project currently under construction will soon add up to 0.4 MW of new and clean energy to the Honduran local grid. An additional 1.3 MW (from the Hydro Yojoa and La Esperanza projects) are expected to be constructed early in 2002 and further increase Honduras' clean energy output in the short term.

Other projects supported throughout the past eighteen months included: Tres Valles Hydro, Riachuelo Hydro and Cenit Zacapa in Honduras.

3. As previously mentioned, even though 15 business plans were fully completed, 24 projects were supported with enterprise development services. As a result of these efforts, it is expected that in addition to the 15 business plans already concluded, at least three additional business plans will be finished by December 2001 (San Marcos wind and hydro, Guatemala, Bronzeoak/Gemina biomass project in Honduras). This will result in a total of 18 projects structured under FENERCA's first implementation phase.
4. The 18 project proposals structured are being submitted to financial institutions for financing, as part of task CA6.

Prevailing Work

Overall, the FENERCA team was able to complete a substantial part of the anticipated work under Task CA3 during its first eighteen months of implementation. As highlighted in FENERCA's previous quarterly reports however, as a result of ongoing market reforms and ever changing rules in the five target countries, the projects initially targeted developed in different ways. The results of the analyses conducted as part of the business plan development process highlighted the need for further updates, refined financial engineering and in some cases, technical assistance funds to properly assess feasibility and ensure thorough information that can make the projects strong face to potential investors. Having had the opportunity to approach local financial institutions and to gain a better understanding of their investment processes and needs, the FENERCA team needs to concentrate its efforts on further refining existing business plan proposals along those lines, in order to further increase the possibilities of financing.



The FENERCA team must therefore secure the continuation of the provision of enterprise development support to local entrepreneurs and increase their opportunities to attract adequate financing. In this regard, the FENERCA team has established a work plan to focus its efforts on improving projects currently in its pipeline while addressing some of the additional needs identified during its first implementation phase. A preliminary project pipeline, which includes projects identified during the program's first phase as well as new business opportunities, for the next twelve months of program implementation is as follows:

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Project	Tecnology	Country	Project Manager
Tres Valles	Biomass	Honduras	E+Co
Bronzeoak	Biomass	Nicaragua	E+Co
San Judas	Hydro	Guatemala	E+Co
Tecnosol	PV	Nicaragua	E+Co
Ademipp	PV	Panama	BUN-CA
Ancon	PV	Panama	BUN-CA
San Marcos	Wind	Guatemala	BUN-CA
San Marcos	Hydro	Guatemala	BUN-CA
Cececapa	Hydro	Honduras	BUN-CA
ATDER	Hydro	Nicaragua	BUN-CA
San Marcelino	Wind	El Salvador	E+Co
Solaris	PV	Honduras	E+Co
Cenit-Zacapa	Hydro	Honduras	E+Co
Comayagua	Hydro	Honduras	E+Co
Dintersa	PV	Guatemala	E+Co
El Rodeo	Hydro	Honduras	E+Co
La Castalia	Hydro	Honduras	E+Co
Tecnosolar	PV	El Salvador	E+Co

According to the specific project needs, the FENERCA team will focus its efforts on refining projects currently undergoing and prioritize new opportunities.

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3. Task CA4: Strengthening of Financial Institution's Capacity

Main Results

Expected Results Quarter 2-3 – Quarter 5	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work
2 institutions trained per country	Honduras: 16 Panama: 13 Nicaragua: 12 El Salvador: 12 Guatemala: 8 TOTAL FIs trained: 61 (see Annex 3)	Same	None. All anticipated training sessions have been concluded.
10 FIs embracing RE	El Salvador: 2 Guatemala: 8 Honduras: 2 Nicaragua: 9 Panama: 13 TOTAL:34	Same. Further outreach undertaken on a deal basis.	None. Continued outreach and further capacity building necessary to guarantee adequate financing.
10 transactions under review by FIs	El Salvador: 2 Guatemala: 6 Honduras: 8 Nicaragua: 3 Panama: 2 TOTAL: 21		Formal co-financing opportunities continue to be explored as business plans and projects advance.
200 person hours of training (20p * 10 hrs)	Honduras: 224 Panama: 192 Nicaragua: 144 Guatemala: 192 El Salvador: 136 TOTAL: 888	Same	None. Anticipated training sessions have been concluded.
At least 5 training packages developed and distributed per country	Primary training package for FIs developed in July 2000. TOTAL packages distributed: 84	Same.	None. All training manuals have been distributed.

Exceeding the program's anticipated results, six training sessions on Financial Engineering and risk assessment for renewable energy projects were prepared and conducted in the five target countries throughout the past eighteen months, as follows:

1. July 12th and 13th 2000 (Tegucigalpa, Honduras): two-day workshop;
2. January 23, 2001 (Guatemala City, Guatemala): the meeting was attended among others, by Guatemala's Vice-Minister of Energy, Mr. Rodolfo Santizo, who expressed the need to establish a renewable energy fund to extend renewable energy services in rural areas.
3. February 27, 2001 (Tegucigalpa, Honduras);
4. April 3rd, 2001 (Panama City, Panama);
5. April 6, 2001 (Managua, Nicaragua): the event was prepared and supported by the Nicaraguan Bank Association.
6. June 14, 2001 (San Salvador, El Salvador).

Each of these training sessions were co-sponsored by the UNDP/GEF program FOCER, implemented by BUN-CA. Overall, US\$18,000 was leveraged from this program for all CA4 training activities. Additionally, most sessions were conducted “back to back” with CA5 training activities.

Overall, these sessions provided more than 800 person hours of training and were attended by 61 local financial institutions and 111 representatives from commercial, micro-credit and regional finance organizations. The meetings contributed on one hand to introduce basic renewable energy project evaluation concepts to local financiers and on the other, to enable the FENERCA team to expand its knowledge base on the specific terms, obligations and potential barriers for projects seeking financing.

Workshop on Financial Engineering held in Managua, Nicaragua on April, 5-6, 2001



Prevailing Work

As previously stated, the FENERCA team was able to complete and exceed all anticipated work under Task CA4 on time. This first set of training sessions represented a unique opportunity for the team to become acquainted with key local and regional financiers that expressed interest in financing renewable energy deals. Although the training sessions provided general tools that can be used by local financiers while analyzing renewable energy projects, it is necessary to work on concrete project proposals to guarantee adequate risk assessment and apply these instruments in a practical manner. This would facilitate channeling the necessary resources to actual project deals and formally introduce a suitable risk analysis approach within institutions that generally follow a more conservative process to energy financing. The team considers it is necessary to “accompany” local financiers in this practical analysis (at least in this initial phase), to build on the foundation established during these first eighteen months of implementation.

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4. Task CA5: Capacity Building for NGOs and Micro-Lenders on Smaller-Scale and Rural Energy Applications

Main Results

Expected Results Quarter 2-3 – Quarter 5	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
2 institutions trained per country	Honduras: 18 Guatemala: 21 Panama: 68 Nicaragua: 35 TOTAL: 142	Honduras: 18 Guatemala: 23 Panama: 65 Nicaragua: 37 El Salvador: 21 TOTAL institutions trained: (See Annex 3)	None. All anticipated training activities have been fully completed.
10 institutions embracing RE	Guatemala: 21 Honduras: 26 Panama: 68 Nicaragua: 38 TOTAL: 153	Guatemala: 23 Honduras: 18 Panama: 65 Nicaragua: 37 El Salvador: 21 TOTAL: 164	None.
200 person hours of capacity building (20 p * 10 hours)	TOTAL: approximately 2,200	El Salvador: 144 (18*8) Guatemala: 304 (38*8) Honduras: 280 (35*8) Nicaragua: 384 (48*8) Panama: 760 (95*8) TOTAL:	None.
At least 5 training packages developed and distributed per country	Primary training package for NGOs developed in July 2000. TOTAL: 192 packages distributed	TOTAL: 222	None. Existing training packages will be distributed if requested.

Five CA5 training sessions were completed during FENERCA's first eighteen months of implementation. Just as with CA4, these sessions were organized and held "back to back" with the training for financial institutions (CA4) and were also supported by the UNDP/GEF-sponsored program FOCER. US \$18,000 were leveraged as a result.

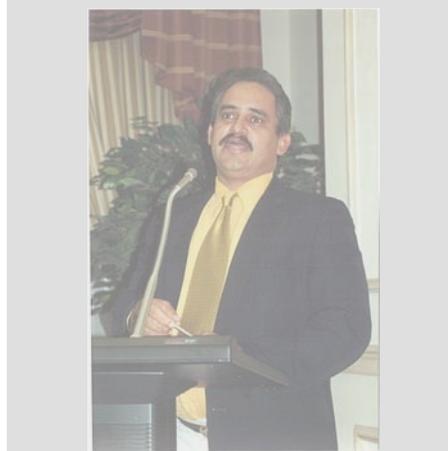
The specific training activities conducted included:

1. 11-12 July 2000 (Tegucigalpa, Honduras): with the support of the Secretary of Natural Resources and Environment (SERNA), a first seminar on financial engineering for renewable energy projects was conducted in Honduras. In addition to providing business plan development instruments for renewable energy entrepreneurs, the session also represented an opportunity to study the privatization law of the energy sector, which is under review.
2. November 8, 2000 (Panama City, Panama): a workshop on "Small-Scale Renewable Energy" was organized under the lead of the FOCER program and additional support was also received by the Centro Internacional para la Capacitación Ambiental (CICA—International Center for Environmental Training) associated with ANCON, a local NGO.
3. January 22, 2001 (Guatemala City, Guatemala).

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4. April 2ⁿ, 2001 (Panama City, Panama): the session gathered Panama's key NGOs and public sector energy institutions and was attended by Mr. Michael Mihalitsianos, Executive Director of Panama's Commission for Energy Policies (COPE). Mr. Mihalitsianos has played a key role in promoting renewable energy in Panama and has worked in close partnership with both FENERCA and FOCER throughout the past eighteen months in the policy arena.
5. April 5, 2001 (Managua, Nicaragua).
6. June 15, 2001 (San Salvador, El Salvador): the event concluded with a presentation made by Mr. Roberto Rivas, General Director of Environment of the Ministry of Environment and Natural Resources. A total of 224 person-hours was achieved in this workshop. See Appendix N^o10 for the list of participants in this event.

Overall, a total of 1,800 person hours of training were provided to local entrepreneurs, NGOs and public sector organizations as part of Task CA5. 164 organizations and 226 persons attended these events in the five target countries. In general, the training highlighted the need to structure renewable energy initiatives in a financially sustainable manner and provided the attendants with the basic instruments to address this objective and structure their projects as sound business deals. The FENERCA team received an overwhelming response and specific requests from local entrepreneurs and NGOs to provide further support in terms of business plan development. These were groups that, as a result of the training sessions and the work advanced by FENERCA, realized the need to structure specific project proposals in a business-like manner.



Mr. Adonai Ríos, Executive Director of ADEMIPP, a local association of small farmers in Panama, discusses his experience in the preparation of a Business Plan for the use of photovoltaics for irrigation, during the workshop held in Panama City on April 2nd, 2001.

Prevailing Work

Just as with Task CA4, 100% of the work originally anticipated in Task CA5 was completed on time. The training activities held as part of this task supported the parallel efforts undertaken in the areas of project development (CA3) and policy framework (CA7). In fact, these sessions provided a forum where entrepreneurs and policy stakeholders were able to discuss concrete project proposals and the difficulties they face while implementing their projects in terms of regulatory barriers. This further contributed to alert policy stakeholders of the need to develop and support a regulatory framework that supports renewable energy development. Having initiated this process, it is therefore necessary that the team continue working in partnership with regulatory entities and entrepreneurs to create mechanisms to overcome current policy barriers. As experienced during this first implementation phase, the best mechanism to attract the interest of local regulatory entities is to work on specific project deals that can point to concrete policy barriers.

As previously highlighted, as a result of these initial training sessions and the provision of business plan development tools among entrepreneurs and NGOs, the FENERCA team

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was able to build initial business plan development capacity at the local level. However, now that these skills have been provided, there is a need to further assist entrepreneurs in structuring their business deals, specifically in terms of financial engineering and stronger negotiating skills, to guarantee that the projects can attract the necessary interest and financing from potential investors. Thus, further business development tools and more concrete support need to be provided at the entrepreneurial level. This work should be advanced in more targeted training sessions that go beyond an introduction and that focus only in a few entrepreneurs. This will guarantee that the training team focuses on specific project deals and that the training is provided on a more practical basis, while projects are being advanced. It is recommended that these activities be undertaken in conjunction with Task CA3, in order increase the time spent between entrepreneurs and FENERCA managers and that specific issues and inquiries are addressed in a thorough and timely manner. In addition, local FENERCA representatives should be involved in these sessions in order to further strengthen their capacity.



Mr. Rodolfo Santizo, Deputy Minister of Energy, during the closing ceremony of the Financial Engineering Workshop held in Guatemala City on January 23rd, 2001

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5. Task CA6: Organization of Next Stage Financing

Main Results

Expected Results Quarter 2 – Quarter 6	Results Achieved As of July , 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
50 banks, non-bank specialized funds and capital market sources consulted	142 resources consulted	Same	Additional contacts to be established throughout program implementation.
15-20 business plans reviewed by Fis	Business plans under review: El Salvador: 2 Guatemala: 5 Honduras: 8 Nicaragua: 3 Panama: 2 TOTAL: 20	TOTAL business plans submitted: El Salvador: 2 Guatemala: 7 Honduras: 7 Nicaragua: 3 Panama: 2 TOTAL: 22 business plans and projects developed and supported	Further refining of current business plans and submission of new project deals, in order to target larger number of financiers
US\$50 M of financial resources committed for RE initiatives (US\$230,000 committed by E&Co)	US\$ 2,230,000 (including US\$25,000 invested by E&Co in Tecnosolar in Dec. 2000, and US\$100,000 invested by E&Co in Snow Mountain in April 2001. An additional US\$105,000 to be committed from E&Co; US\$1.455M of project-specific loans & equity investments and US\$750,000 from FOCER)	E+Co: US\$275,000 disbursed (Tecnosolar, Snow Mountain) + US\$500,000 committed (La Esperanza, Yojoa)	Additional sources of financing to be secured, as business plans and projects evolve.
50 MW of new RE installed in the CA region	250 kW funded by E&Co and FENERCA under construction.	5MW funded by E+Co of new biomass capacity installed El Salvador + 0.4 MW of new hydro funded by E+Co currently under construction in Honduras	Projects for an additional ~2 additional MW close to reaching financial closure (LA Esperanza and Hydro Yojoa). Construction expected to begin early 2002.

During FENERCA's first implementation phase, financial institutions were approached for potential financing both during the training sessions conducted as part of task CA4 as well as during private discussions held with project sponsors and credit officers in each of the countries. The work undertaken under tasks CA4 and CA3 (preparation of business plans) was therefore key to advancing all this work. In both instances, the FENERCA team played a key role as a potential co-financier and as a financial advisor to local entrepreneurs. As a result of these efforts, a total of 24 business proposals were submitted to the following financial institutions:

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1. Tecnosolar (El Salvador): Banco Agrícola Comercial and E+Co
2. Empresa Eléctrica del Norte (El Salvador): CFA and E+Co
3. San Judas Hydro (Guatemala): Caribbean Basin Fund and E+Co
4. Chan Chan (Guatemala): E+Co and REEF
5. Jones (Guatemala): E+Co and REEF
6. San Marcos Wind (Guatemala): E+Co and NRECA
7. San Marcos Hydro (Guatemala): E+Co and NRECA
8. Selmecca (Guatemala): NRECA and E+Co
9. Geoteca (Guatemala): E+Co
10. Yojoa Hydro (Honduras): E+Co, BCIE/BGA and REEF
11. Snow Mountain (Honduras): E+Co
12. Atlantis (Honduras): E+Co, BAC Panama and EMCE
13. La Esperanza (Honduras): E+Co, CFA, BCIE and CGA
14. SEDES (Honduras): E+Co
15. Tres Valles Hydro (Honduras): E+Co
16. Tres Valles Co-Gen (Honduras): E+Co
17. Bronzeoak (Nicaragua): E+Co, Prototype Carbon Fund
18. Tecnosol (Nicaragua): E+Co
19. ATDER (Nicaragua): E+Co, World Bank
20. Ademipp (Panama): E+Co
21. Ancon (Panama): E+Co
22. Papeles Elaborados Hydro: E+Co and NUON (Dutch utility for carbon purchase)

Over the past eighteen months, E+Co was able to exceed its original investment commitment in FENERCA's target countries and funded projects for a total of US\$275,000 as follows:

- Snow Mountain Hydro, which is currently under construction and is expected to generate an additional 0.4 MW of new energy in Honduras; and,
- Tecnosolar, a PV enterprise in El Salvador that has installed more than 500 solar home systems in rural areas in that country.

Additionally, E+Co has committed an additional US\$500,000 to two other projects in Honduras: Hydro Yojoa and La Esperanza that are expected to reach financial closure and begin construction during 2002. These two projects will provide approximately 2 MW of additional energy to the local grid.

As preciously reported, during the past eighteen months, FENERCA was able to leverage US\$750,000 from FOCER, the UNDP/GEF sponsored program currently being implemented by BUN-CA.

Prevailing Work

Although a number of local institutions have been approached to secure financing for the projects being supported by FENERCA and substantial leverage has been achieved, substantial financing still needs to be secured to ensure that projects currently being structured in FENERCA's pipeline reach closure and are subsequently constructed. Preliminary estimates indicate that these projects will need approximately US\$100 million in investment (both equity and debt). As E+Co's funds are limited, FENERCA's efforts to secure funding both in the pre-investment and investment phase must continue and expand.

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6. Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects

Main Results

Expected Results Quarter 2 – Quarter 6	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
Identification of key policies, barriers and opportunities that need attention in each target country	Specific in-country missions conducted by Bun-Ca and PA team. Advanced draft of issue briefs concluded. Policy workshop co-sponsored with FOCER in Panama.	Key policies and barriers identified through in-country missions and surveys.	None.
Proposed changes in laws, regulations, and policies to address barriers and opportunities	Proposed changes and mechanisms to address barriers being analyzed in issue briefs.	Changes proposed through policy document drafted, distributed and commented by key stakeholders. Key international regulatory frameworks showcased and analyzed.	None.
Recommendation on processes to implement changes	Specific recommendations to be included in policy briefs.	Initial recommendations gathered as part of regional high-level policy meeting.	None.
Strengthening of regulatory and policy analysis and intervention capacity of BUN-CA	Specific consultation groups identified. Issue and policy briefs to be distributed and consulted with them as main capacity building strategy.	Key stakeholder groups consulted and policy briefs distributed. Potential policy changes discussed at high-level meeting.	Policy change to be initiated.

With the support FENERCA's in-country representatives and BUN-CA's regional policy network, the team was able to complete and exceed the anticipated work under Task CA7, aimed at influencing national policies towards the promotion of small-scale renewable energy projects.

Through in-country missions and interviews with key stakeholder groups (including entrepreneurs, regulatory entities and NGOs), the FENERCA team was able to gather meaningful information regarding the main policy barriers facing the implementation of renewable energy projects in the Central American region.

Based on this preliminary information, a document was prepared reflecting the main findings of the team's assessment, and shared with the national energy authorities in each of the five target countries. As part of this document, the team showcased specific international renewable energy regulations in place at the international level. The comments and suggestions received, provided the necessary input to produce a final

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document on “Developing Regulatory and Policy Options for Renewable Energy Projects in Central America” (included in Annex 4).

In September 2001 FENERCA convened a high-level meeting of six senior level representatives from the Energy Ministries of Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama to review the program’s policy document. The energy directors discussed the major barriers to the development of renewable energy projects and identified concrete mechanisms to address these barriers and further development and investment in renewable energy projects in the region. The meeting provided a unique opportunity to discuss current policy trends in Central America and to solicit input from the senior level representatives on potential barrier removals. As a result of this activity, local regulatory authorities strengthened the work they are currently undertaking in the energy field.

Working session held in Costa Rica on September 20, 2001, with the participation of energy authorities of Central America



Also as a result of FENERCA’s activities within the policy framework and the work advanced in the project structuring and training areas in Honduras, 18 PPAs for renewable energy projects were approved from the electric utility in this country. These projects are now seeking financing and it is expected that they will result in at least 130 MW of additional clean energy. E+Co has already committed to invest in 3 of these new small hydro projects (Hydro Yojoa, 630 kW; Snow Mountain, 500 kW and La Esperanza, 1.4 MW), which are expected to begin construction early in 2002.

Prevailing Work

The assessments, consultations and documents produced by FENERCA during the past eighteen months in the policy arena, have resulted in a positive impact in terms of opening a space for promoting renewable energy in the regulatory framework. Through FENERCA’s work, local regulators have recognized the existence of barriers for project implementation and analyzed potential options for overcoming them. It is necessary that the FENERCA policy team build on this initial work to ensure that the discussions held to date transform into concrete policy changes. In order to achieve this result, the team must focus on one or two target policies and countries, where the regulatory environment is more favorable. Also, it might be appropriate to involve a larger number of regulatory stakeholders (including

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perhaps local utilities that have generally shown a more orthodox approach to energy generation and regulations, congressional energy committees and energy ministers), to seek their support.

7. *Task CA8: Facilitation of Carbon Transactions*

Main Results

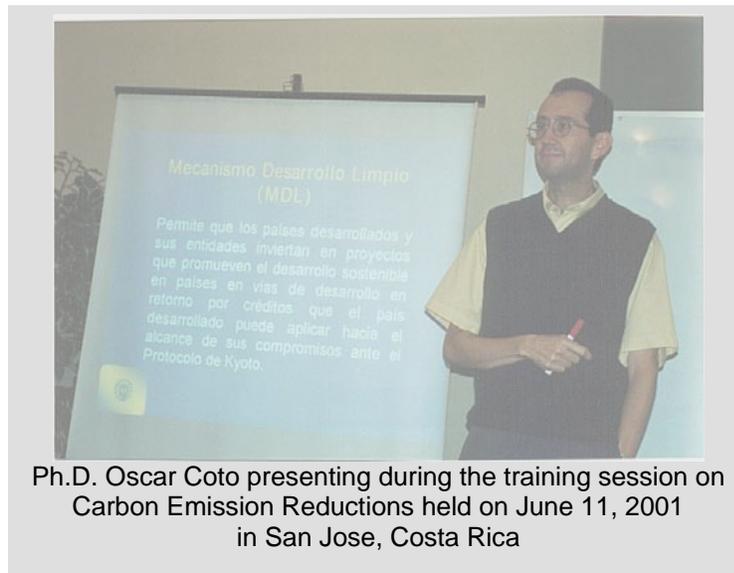
Expected Results Quarter 2 – Quarter 6	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
5 model projects analyzed ready to be examined by buyers	4 projects prepared and submitted for Prototype Carbon Fund consideration. 2 of these projects also submitted to other potential carbon buyers. 3 additional projects analyzed in June 2001.	Preparation of first international transaction on carbon sale involving assets in a developing country. 8.2MW of carbon emissions sold to NUON.	None
100,000 tons of carbon prepared for sale	Projects submitted to PCF for consideration targeted 1,242,675 tons of CO2 equivalent.	TOTAL of ~1.4 million prepared for sale.	Same
US\$500,000 of carbon prepared for sale	Total of US\$4.5 million prepared for sale (for 7 projects)	Same	Same
Standardized worksheet to calculate carbon per project.	Completed	Same	None
Increased BUN-CA capacity to implement carbon transactions	In-country reps. involved in information gathering process to outline baseline data for each of the 5 countries. BUN-CA directly involved in developing specific formula to calculate carbon in RE projects and in analysis of projects for carbon sale.	Same	None

With the support of FENERCA's in-country representatives, during the program's first implementation phase key information on the energy sector and the fuel mixes of the five target Central American countries was gathered. Based on this information, a specific approach was developed on how to calculate carbon emission reductions for renewable energy projects. This information was key to make renewable energy projects sponsors aware of the existing financing opportunities in the carbon sector.

As part of the institutional strengthening activities undertaken as part of this task, FENERCA staff (BUN-CA and E+Co) was trained on carbon emission reductions and provided with basic carbon calculation skills. The training built on the knowledge and expertise of Fundación Solar, a Guatemalan energy NGO. As a result of the meeting, the FENERCA team was able to standardize its carbon calculation approach and exceed the tasks' anticipated results by identifying and analyzing seven projects for carbon sale.

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As a result of these efforts also, in partnership with EcoSecurities, a leading carbon brokerage firm, E+Co was able to complete the first international green certificate transaction involving assets in a developing country. The transaction involved Hidroelectrica Papeles Elaborados (HPE) a hydro electric project supported by FENERCA under Tasks CA3 and CA8 in Guatemala, and Nuon, the largest electricity distributor in the Netherlands. Nuon committed to purchase 100% of HPE's 8.2 MW carbon emissions for the next ten years. The carbon certificates will be used by Nuon as part of its green energy products. The transaction is one of the largest green certificate transactions to date.



Ph.D. Oscar Coto presenting during the training session on Carbon Emission Reductions held on June 11, 2001 in San Jose, Costa Rica

Prevailing Work

All anticipated carbon activities under Task CA8 were completed during FENERCA's first eighteen months of implementation ahead of time. As previously described, the team exceed all anticipated results. Considering the knowledge gained during this implementation process, it is recommended that the team continue using the instruments built as part of this task and that potential carbon opportunities be considered as part of the project development work to continue under Task CA3 and throughout future training sessions. The carbon component of renewable projects and the tools and experienced gained through Task CA8 are especially relevant in terms of securing additional financing for projects currently being structured under FENERCA's pipeline.

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8. *Task CA9: Support and Capacity Building of BUN-CA*

Results Achieved

Expected Results Quarter 1 – Quarter 6	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
5 NGOs actively working in each country instituted as part of BUN's network	El Salvador: 3 Guatemala: 2 Honduras: 2 Nicaragua: 3 Panama: 4 TOTAL: 14	Same	None.
10 new professional contacts	35 new professional contacts established	Same	None.
Essential training received by BUN-CA	A total of 799 person hours of training have been provided to BUN-CA throughout FENERCA.	Total: 919 hours of training provided to BUN-CA personnel.	None.
Development of organizational business plan	The final version of the document is currently under review by BUN-CA.	Final draft delivered October 2001. (Annex 5).	None
US\$54,000 of working capital to strengthen BUN's capacity to continue activities and retain professionals	US\$54,000 disbursed in January 2001. 5 in-country representatives retained in each of FENERCA's target countries.	None.	None.

As originally anticipated in the program, during the past eighteen months substantial efforts were undertaken to strengthen BUN-CA's capacity to plan, organize and implement renewable energy initiatives that are sustainable. These efforts however, were the result of a partnership established between E+Co and BUN-CA that was built as FENERCA evolved and that was strengthened by the progress achieved throughout the program's implementation. The partnership among the implementing organizations is considered the basis for the success of all activities and tasks undertaken to date and as a result, all expected work has been achieved on time, exceeding by far all anticipated outcomes.

A detailed summary of all activities undertaken as part of Task CA9 is included in Annex 5 (BUN-CA's Final Report). Some of the key results however, include:

- A total of US\$54,000 provided to BUN-CA as working capital.
- BUN's network was expanded in the Central American region, and 14 NGOs are currently working as part of the organization. The extended presence region-wide has expanded BUN-CA's contacts both at the project and policy levels and has increased its channels for influencing the renewable energy market in the target countries.
- At least 900 person-hours of training in business plan development and renewable energy financial engineering was received by BUN-CA, in addition to "on the ground" project preparation activities.

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With the tools and information received through the different FENERCA training activities and its involvement in program-related activities on-the ground, BUN-CA produced a detailed organizational and programmatic Business Plan that includes a long-term strategic work plan. The development of this document provided an opportunity to establish a more sustainable approach to the organization's activities in all the countries and at its headquarters. As a result, BUN-CA has a more stable and defined technical and administrative professional structure and it has improved its infrastructure.

Prevailing Work

No additional activities remain pending under Task CA9. However, as recently recognized by BUN-CA and also by E+Co, although useful training and key tools have been provided throughout the past eighteen months, there are still areas where the organization needs further support. These include the project structuring and financial engineering activities, where BUN-CA could substantially benefit from E+Co's experience. In this regard, it is recommended that BUN-CA continue to work in close partnership with E+Co-LAC staff during the project analysis and structuring process in Costa Rica. Further efforts need to be undertaken to make the most of both organizations' location in San Jose to increase the time spent by E+Co and BUN-CA staff in this process. Additionally, local in-country representatives also need to have an increased involvement in the project development work to ensure their increased capacity over the long-term.

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9. *Tasks XC1 (Off-grid Services Manual), XC2 (Carbon Manual), XC3 (M&E Manual), XC3a (Business Plan Development Manual)*

Results Achieved

Expected Results Quarter 1 – Quarter 5	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work as of October, 2001
XC1: Off-grid services manual - Development of an off-grid manual - Translation of manual to Spanish - Distribution of 100 manuals	Final editing in English concluded. Spanish translation in progress.	Spanish translation and editing concluded.	Formal distribution pending.
XC2: Carbon manual - Development of carbon manual - Translation of manual to Spanish - Dissemination of 25 manuals	Working with local partner (Fundación Solar) in development of basic carbon calculation model. Intro section being drafted. Final editing in English concluded. Spanish translation in progress.	Spanish translation and editing concluded.	Formal distribution pending.
XC3: M&E manual - Development of manual - Translation of manual to Spanish - Dissemination to 30 stakeholders	Draft document reviewed and circulated for comments.	Final version in progress.	Translation and editing pending.
XC3a: Business Plan Development Manual - Development of Manual - Translation of manual to Spanish - Dissemination to 25 stakeholders	Development concluded November 2000. Translation and editing took place in December and January 2001, and dissemination begun January 2001 (10 manuals distributed). Further editing was undertaken in English and reviews are required in Spanish.	Final version in progress.	Final version to be edited and distributed (pending).

Over the past eighteen months, FENERCA advanced the production of three manuals, anticipated as the program's crosscutting activities. The manuals have complemented the program's carbon and training activities, contributing to FENERCA's impact in these areas. Also as originally foreseen, the FENERCA team advanced substantial work in terms of developing the Business Plan Development Manual for Renewable Energy Entrepreneurs under Task XC3a, an unanticipated task that was included by the implementing team, in order to guarantee adequate access to business development instruments being used elsewhere. Although still a "work in progress" this manual has been the basis for FENERCA's activities in the project development and training fields.

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Specific activities and results achieved as part of Task XC1, XC2, XC3 and XC3a included:

Task XC1: Off-Grid Services Manual

- A manual on off-grid business models was prepared, translated and edited by the FENERCA team (copy attached in Annex 6). The manual provides a step by step guide on how to appraise the technical and market feasibility of an off-grid renewable project. 300 copies are currently being distributed amongst project entrepreneurs and key stakeholder groups throughout the Central America region.

Task XC2: Carbon Manual for Entrepreneurs

- A carbon manual for renewable energy entrepreneurs that provides a carbon calculation instrument to appraise emission reductions linked to renewable energy projects was prepared, translated and edited by the FENERCA team (copy attached in Annex 7). The carbon calculators address the specific fuel mixes of FENERCA's five target countries in Central America. 200 copies are currently being distributed amongst project entrepreneurs and key stakeholder groups throughout the Central America region. The possibility of adapting this document for distribution through the United Nations Foundation Program in Africa and Brazil is under consideration.

Task XC3: Monitoring and Evaluation Manual

- A Monitoring and Evaluation Manual for Renewable Energy Projects has been concluded in its draft form. The manual aims to provide a step by step guide on how to monitor a renewable energy business from a financial and an environmental and a social impact perspective. A final version is under development by E+Co.

Task XC3a: Business Plan Development Manual for Renewable energy Entrepreneurs

- The Business Plan Development Manual was built E+Co's Tool Kit, a targeted instrument aimed at providing a guide to entrepreneurs who are thinking about starting or expanding a clean energy business. The manual, is a guide that enables readers to turn their business ideas into a reality. Some of the topics addressed range from how to evaluate specific objectives to prepare a financial analysis, to determining a distribution strategy for a specific renewable energy project. In addition to explaining what information is included in a business plan, the toolkit also assists entrepreneurs in compiling the data in an informative and convincing manner that can be used within their business or to attract financing. Although at least 30 copies of the Business Plan Development Manual were distributed throughout the past eighteen months, the manual is still a "work in progress" that continues to be improved.

Prevailing Work

Although the Off-Grid and Carbon manuals were fully completed and initially distributed in Spanish, the M&E manual is still to be concluded. The FENERCA team considers this manual as an integral part of the Business Plan Development Manual and as such, it should be completed as soon as feasible, in order to guarantee an adequate and complete instruments to strengthen the local entrepreneurial capacity. Also, even though a number of copies of the XC1 and XC2 manuals were shared with partners and stakeholders in the target countries, a formal distribution strategy is still to be defined and a larger number of copies. This distribution should take place as soon as feasible.

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10. Task MME

Results Achieved

Expected Results Quarter 1 and Quarter 6	Results Achieved As of July, 2001	Results achieved as of October, 2001	Prevailing work As of October, 2001
Development of a project monitoring and evaluation tool	Tool developed in Quarter 1 2000.	Same.	None.
Tracking and analysis of program costs	Specific financial system and program specific budgets developed in Quarter 1. Tracking of program costs takes place on a monthly basis. In-depth analysis is being done quarterly.	Same.	Monthly and quarterly reports to take place throughout implementation.
Quarterly Progress Reports and course corrections	Task Managers have submitted five quarterly reports.	Six quarterly report submitted in July 2001.	None
Monitoring of tasks completed on time and within budget	Completion ratios instituted among Task Managers as part of MME reports.	Completion ratios being reported Quarterly reports and task completion being managed by Task Managers.	None
Monitoring level of expenses /dollar amounts	Under analysis from E+Co on a monthly and quarterly basis	Level of expenses reported on a quarterly basis	None
Achievement of activity progress indicators and expected results.	On target in most cases. If not, specific measures and re-scheduling taking place.	Same	None

As scheduled at FENERCA's inception, specific activities at the organizational/administrative and management level were advanced throughout the past eighteen months to ensure adequate program implementation, under Task MME. These activities enabled the team to establish the necessary resources on the ground and to advance its work on an efficient and timely manner.

1. Organizational/administrative and operational activities

Upon becoming effective on April 18, 2000, and taking into consideration cultural as well as language characteristics of the Central America region, the program's name was modified to "FENERCA", the acronym in Spanish for "Financiamiento de Empresas Energéticas en Centroamérica". This name facilitated communication and promotional activities both within the program's management team (which is in large part composed of Spanish speakers) and with key stakeholder groups at the country level.

According to the program's initial targets, the team dedicated substantial time during the first phase of implementation bringing the program team together and fulfilling the necessary operational and administrative requirements necessary to advance and manage the program's work. Some of the activities undertaken during this period included finalizing

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the necessary sub-contracts with BUN-CA and the in-country representatives, as well as with PA Consulting (formerly Haggler Bailly).

a. Sub-contract with BUN-CA and engagement of in-country personnel:

With the assistance of USAID's Contracts and Global Environment Divisions, the sub-contract to officially engage BUN-CA as part of the team became effective on June 28th, 2000. According to the program's original objectives, five in-country representatives were contracted as follows:

Mr. Jorge Luis Galindo/Carolina Palma, Guatemala
Ms. Patricia Panting, Honduras
Ms. Maria Engracia de Trinidad, Nicaragua
Ms. Ana Maria Gonzalez/Mr. Ismael Sanchez, El Salvador
Mr. Orlando Aguilar, Panama

Due to contract changes and expirations, two local representatives were replaced during the first eighteen months of FENERCA's implementation. All local staff however, presented excellent qualifications and experience either in the non-governmental, financial or private sectors that ensured the necessary support to advancing FENERCA's work on the ground. As foreseen at the program's inception, targeted training was also provided to local representatives to strengthen their business structuring skills. The engagement of the in-county representatives ensured presence at the country level and extended the reach of the work undertaken in Costa Rica by the FENERCA management team. This was considered a first significant achievement not only under Task MME, but also as part of Task CA9 (Support and capacity Building of BUN-CA), which envisioned expanding BUN-CA's network and anticipated at least five NGOs actively working for the organization in each of the countries covered by the program.

b. Sub-contract with Pa Consulting (formerly Hagler Bailly): After numerous delays, mainly due to the buy out of Haggler Bailly by PA Consulting, the contract for PA's consulting services was signed in February 2001. Work started immediately and, in part as a result of BUN-Ca's early involvement in the policy framework, all anticipated activities under Task CA7 were completed on time.

2. Monitoring and management activities

According to FENERCA's anticipated results, a "program-specific M&E mechanism was to be developed and established during Quarter 1". Accordingly, during the first months of program implementation the FENERCA team developed program-specific reporting mechanisms and a managerial structure for program implementation that resulted in a concrete project monitoring tool that facilitated program oversight and proper performance throughout the past eighteen months.

The team allocated specific managerial responsibilities amongst management staff as follows:

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Task Management Obligations

Task	Task Manager	Bun/In-country team	E&Co	Hagler Bailly
CA1	Sergio Guillén (E&Co)	Leonel Umaña	Gina Rodolico/Johanna Hjerthén	
CA3	Fernando Alvarado (E&Co)	José María Blanco	Phil LaRocco/Sergio Guillén	
CA4	Fernando Alvarado (E&Co)	Leonel Umaña	Lorna Li/Johanna Hjerthén	
CA5	Leonel Umaña (BUN-CA)	José María Blanco	Sergio Guillén/Johanna Hjerthén	
CA6	Fernando Alvarado (E&Co)	Leonel Umaña	Lorna Li	
CA7	José María Blanco (BUN-CA)	Joost Siteur	Sergio Guillén	Ignacio Rodríguez
CA8	Gina Rodolico(E&Co)	Leonel Umaña/Joost Siteur	Phil LaRocco/Sergio Guillén	Ignacio Rodríguez
CA9	Fernando Alvarado (E&Co)	José María Blanco	-	
XC1	Phil LaRocco(E&Co)	José María Blanco	Sergio Guillén	Keith Kozloff
XC2	Gina Rodolico (E&Co)	Leonel Umaña/Joost Siteur	Phil LaRocco	Keith Kozloff
XC3	Johanna Hjerthén(E&Co)	Leonel Umaña	Lorna Li	Keith Kozloff
XC4	Fernando Alvarado (E&Co)	Leonel Umaña	Lorna Li/Phil LaRocco/Johanna Hjerthén	
MME	Johanna Hjerthén/Debbie McGinn(E&Co)	José María Blanco	Fernando Alvarado	Keith Kozloff

A General Management Team (“Steering Committee”, constituted by Phil LaRocco, José María Blanco, Fernando Alvarado, and Johanna Hjerthén) was established to oversee the work and activities of the Task Managers, who are accountable for providing the necessary information on the program’s performance. This information is then utilized to analyze performance and fulfill the requirements of quarterly reports.

In order to ensure proper oversight and adequate progress, the following additional monitoring tools were developed:

- Progress Reports: these are FENERCA’s main monitoring devices. The reports describe the tasks’ expected targets, according to the program’s anticipated results and provide a baseline that Task Managers can consider while advancing their work under each task. The reports include both quantitative and qualitative data. A sample Progress Report is included in Annex 8.
- Periodic monitoring/coordination meetings: periodic monitoring meetings were held to guarantee proper communication, ensure adequate personnel involvement and teamwork and to secure proper oversight. As part of these sessions, the team was able to develop its work plan (a deliverable of the program submitted as part of the first bi-annual report), train its five in-country representatives, update and review results and progress achieved at different stages, and reorganize targeted work in order to fulfill anticipated results in a timely manner. The following monitoring/coordination meetings were held during FENERCA’s first implementation phase:
 - a. San José, Costa Rica, April 2000.

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- b. San Salvador, El Salvador, July 2000.
- c. Guatemala City, January 2001.
- d. Costa Rica, June 2001.
- e. Bloomfield, NJ, October 2001.

In addition, informal meetings were held between E+Co, E+Co-LAC officials as the team gathered in the field to advance training and other activities.



Planning session held in Guatemala on January 2001, with the participation of staff from E&Co, BUN-CA and the in-country representatives

Prevailing Work

As described in the paragraphs above, throughout the past eighteen months the FENERCA team completed all anticipated activities under Task MME on time. The specific instruments designed for tracking the program's performance were used on a systematic basis and improved as necessary to enable the team to identify areas of course correction. The monitoring/coordination meetings were especially useful in this regard, as they provided an opportunity for team building while enabling the management team to further analyze the progress achieved. Even though all anticipated activities were concluded, in order to guarantee further involvement from the "Steering Committee" and provide better management, it is recommended that both the Task Manager reports and the Quarterly reports that are produced to comply with USAID's reporting requirements, be shared with the members of the Steering Committee. With timely comments and suggestions from all members on the specific information gathered, FENERCA's MME mechanism could be utilized not only to further improve the program's management but also to showcase and market the specific results among potential partners both locally and internationally.

11. Budgetary issues

Overall, during the first eighteen months of operation, the FENERCA team was able to advance all the anticipated work within the projected budget, both in terms of staff time and also with regards to expenses. As shown in the financial/performance report included in Annex 9, for the eighteen-month period covered in this report, altogether the program met the anticipated program targets within a lower budget. This was mainly the result of the later than anticipated involvement of PA Consulting, as well as of the fact that additional activities not originally anticipated are still to be undertaken to further refine the manuals developed under Tasks XC1, XC2 and XC3.

12. Main Conclusions and Recommendations on Course Correction

As previously highlighted, the FENERCA team was able to nearly fully complete the scheduled work on time. In four specific tasks (CA1, CA4, CA5 and CA8), the program exceeded its originally anticipated results. Although each previous section described the work remaining and provided specific comments on possible improvements, the following recommendations aim to briefly summarize management's suggestions on course correction for the continuation of the E+Co and BUN-CA work in the five target countries, under FENERCA's second phase.

Task CA1: Rapid Assessment and Final Work Plan development

100% of the anticipated work under Task CA1 was fully completed. Although no additional activities are expected to take place under FENERCA's second phase under this task, further outreach to local entrepreneurs, financial institutions, government organizations, and especially to local USAID missions in Central America and in new markets is recommended. The network base developed under Task CA1 amongst these stakeholders through the distribution of questionnaires, filed missions and targeted outreach should further be utilized to expand FENERCA's support and secure further leverage from USAID missions and local financiers.

Task CA3: Enterprise Development Services and Completion of Business Plans

As previously highlighted on-going market reforms and ever changing rules in the five target countries resulted in different than anticipated project developments. The need for further updates, refined financial engineering and in some cases, technical assistance funds to properly assess feasibility and to make projects stronger face to potential investors is a clear priority for FENERCA's second phase. It is recommended that while the E+Co/BUN-CA team expands project-structuring activities to new entrepreneurs, it also concentrate its efforts on further refining existing business plan proposals in order to increase their possibilities of securing next-stage financing. Increased handholding with targeted entrepreneurs is required if adequate business plans are to be developed. In addition, a better coordination with training activities under Tasks CA4 and CA5 needs to take place to take further advantage of FENERCA's capacity building activities.

Task CA4:

As previously stated, the FENERCA team was able to complete and exceed all anticipated work under Task CA4 on time. The first set of training sessions conducted under this task represented a unique opportunity for the team to become acquainted with key local and regional financiers that expressed interest in financing renewable energy deals. Although

the training sessions provided general tools that can be used by local financiers while analyzing renewable energy projects, it is necessary to work on concrete project proposals to guarantee adequate risk assessment and apply these instruments in a practical manner. This would facilitate channeling the necessary resources to actual project deals and formally introduce a suitable risk analysis approach within institutions that generally follow a more conservative process to energy financing. It is therefore necessary to “accompany” local financiers in this practical analysis (at least in this initial phase), to build on the foundation established during these first eighteen months of implementation.

Task CA5:

Having successfully initiated an awareness process for renewable energy projects during the training sessions provided among entrepreneurs, development organizations and regulatory entities under this task, it is necessary that the FENERCA team continue working in partnership with these stakeholders to create mechanisms to overcome current policy barriers. As experienced during this first implementation phase, the best mechanism to attract the interest of local regulatory entities is to work on specific project deals that can point to concrete policy barriers. Building on the initial skills provided through FENERCA’s first implementation phase, it is recommended that the team organize and develop more centered training sessions, perhaps with a smaller number of participants, to guarantee proper transfer of business development skills.

Task CA6: Organizing Next-Stage Financing

Although a number of local institutions have been approached to secure financing for the projects being supported by FENERCA and substantial leverage has been achieved, substantial financing still needs to be secured to ensure that projects currently being structured in FENERCA’s pipeline reach closure and are subsequently constructed. Preliminary estimates indicate that these projects will need approximately US\$100 million in investment (both equity and debt). As E+Co’s funds are limited, FENERCA’s efforts to secure funding both in the pre-investment and investment phase must continue and expand.

Task CA7: Developing Regulatory and Policy Options for Renewable Energy Projects

In order to expand and build on the initial awareness that the FENERCA policy team was able to establish in the Central America region and ensure that the discussions held to date transform into concrete policy changes, it is recommended that the team focus on one or two target policies and countries, where the regulatory environment is more favorable. In this sense, it might be appropriate to involve a larger number of regulatory stakeholders (including perhaps local utilities that have generally shown a more orthodox approach to energy generation and regulations, congressional energy committees and energy ministers), to seek their support.

Task CA8:

All anticipated carbon activities under Task CA8 were completed during FENERCA’s first eighteen months of implementation ahead of time. As previously described, the team exceed all anticipated results. Considering the knowledge gained during this implementation process, it is recommended that the team continue using the instruments built as part of this task and that potential carbon opportunities be considered as part of the project development work to continue under Task CA3 and throughout future training sessions. The carbon component of renewable projects and the tools and experienced

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gained through Task CA8 are especially relevant in terms of securing additional financing for projects currently being structured under FENERCA's pipeline.

Task C9: Support and Capacity Building of BUN-CA

Although no additional activities remain pending under Task CA9, there are still areas where the organization needs further support. It is therefore recommended that BUN-CA continue to work in close partnership with E+Co-LAC staff during the project analysis and structuring process that is to take place under Tasks CA3 and CA4 and particularly that further activities be developed jointly in Costa Rica. Further efforts need to be undertaken to make the most of both organizations' location in San Jose to increase the time spent by E+Co and BUN-CA staff in this process. Additionally, local in-country representatives also need to have an increased involvement in the project development work to ensure their increased capacity over the long-term.

Tasks XC1: Off-Grid Services Manual, XC2: Preparation of Carbon Manual for renewable Energy Entrepreneurs and Task XC3: Monitoring and Evaluation Manual for Renewable Energy Entrepreneurs

As previously highlighted, although the Off-Grid and Carbon manuals were fully completed and initially distributed in Spanish, the M&E manual is still to be concluded. The FENERCA team considers this manual as an integral part of the Business Plan Development Manual and as such, it should be brought to completion as soon as feasible, in order to guarantee an adequate and complete instruments to strengthen the local entrepreneurial capacity. Also, even though a number of copies of the XC1 and XC2 manuals were shared with partners and stakeholders in the target countries, a formal distribution strategy is still to be defined and a larger number of copies distributed.

Task MME: Program management, Monitoring and Evaluation

Even though all anticipated activities under Task MME were concluded, in order to guarantee further involvement from the management team and provide better program support, it is recommended that both the Task Manager reports and the Quarterly reports be shared with the members of FENERCA's "Steering Committee". With timely comments and suggestions from all members on the specific information gathered, FENERCA's MME mechanism could be utilized not only to further improve the program's management but also to showcase and market the specific results among potential partners both locally and internationally.

13. Annexes

Annex 1: Description of projects supported throughout program implementation (FENERCA project pipeline)

Annex 2: Business plans completed as of October 2001

Annex 3: List of local entrepreneurs, development organizations and financial institutions trained in Tasks CA4 & CA5 in target countries

Annex 4: Task CA7 policy document “Developing Regulatory and Policy Options for Renewable Energy Projects in Central America”.

Annex 5: BUN-CA’s final report and BUN-CA Organizational Business Plan

Annex 6: XC1 Off-Grid Services Manual

Annex 7: XC2 Carbon Manual

Annex 8: Sample MME report

Annex 9: Financial report

Annex 1
Task CA3:
FENERCA
Project
Pipeline

FENERCA Project Pipeline

- EEN (El Salvador): EEN is a bagasse-based co-generation project with a 5 MW capacity. Although the plant is currently operating, it has requested E&Co's assistance to re-structure its debt and identify additional investors. FENERCA has provided business development services and has also presented the project to E&Co for investment consideration. Other partners, such as the Environmental Enterprises Assistance Fund, are involved in this process.
- Tecnosolar (El Salvador): Tecnosolar is a PV enterprise that has installed more than 500 solar home systems (SHS) in its first two years of operation. The enterprise has developed its own credit fund to make its services available to end-users who cannot pay cash for the SHS. Its goal is to expand its operation to 6,000 SHSs in 5 years. FENERCA has provided support to Tecnosolar in its business structuring and, through E&Co, has also provided financing to advance its PV installations. US\$25,000 has been provided by E&Co to Tecnosolar as part of its investment match under FENERCA (Task CA6).
- San Judas (Guatemala): 30 MW hydro plant. The project is advancing its feasibility study. FENERCA has provided the basic guidelines for business plan development and is assisting San Judas to look for potential partners and financiers, including the REEF and the Caribbean Basin Fund.
- Chan Chan (Guatemala): 1 MW hydroelectric project with experienced sponsors. The project is currently in its feasibility phase and is seeking financing to undertake the necessary technical studies and construction. FENERCA is providing business plan development support as well as assisting Chan Chan to identify potential partners and investors.
- Jones (Guatemala): Hydro project with 2 MW capacity. Same sponsors as Chan Chan. Feasibility is currently being finalized. FENERCA is providing business development support as well as seeking potential financiers.
- Geoteca (Guatemala): Geothermal energy enterprise seeking to develop a 5 MW geothermal project in Guatemala. Geoteca is a wholly owned subsidiary of an industrial company that manufactures concrete products and has used an existing geothermal well in its block drying process. The enterprise is currently seeking investors and FENERCA is providing assistance in this regard.
- San Marcos (Guatemala): FENERCA's support to the project, which is jointly developed by the Municipality of San Marcos and NRECA, includes both enterprise development services and the development of a business plan for the enterprise. The project seeks to implement a 1.2 MW hydro project as well as a 3 MW wind project.
- Hidro Yojoa (Honduras): 630 kW mini-hydro project. A preliminary feasibility study has been completed. The enterprise currently has a PPA and all the necessary permits to begin generating. A preliminary business plan has been developed by the sponsor, under the assistance of FENERCA, using the XC3 manual as a basis. E&Co is currently analyzing an investment in the project, as well as providing assistance to identify other potential funders.
- Tres Valles (Honduras): This is a co-generation bagasse-based project with a total capacity of 17 MW. The company has hired consultants to undertake 2 feasibility studies that were concluded in April 2001. FENERCA has provided business plan development assistance.

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- Snow Mountain (Honduras): The project entails the construction and of a 250 kW micro-hydro plant. The project has all the necessary permits and licenses. The project will sell its production to a private enterprise and to the utility, ENEE. FENERCA has supported Snow Mountain with enterprise development services, business plan development support and has also enabled it to secure a US\$150,000 investment from E&Co.
- Atlantis Hydro (Honduras): Hidroelectrica Atlantis S. de R.L. is a small Honduran hydroelectric developer. The company's objective is to build a 1.8 MW run-of-the-river, high-head facility in northern Honduras. Construction and subsequent electricity sale would complete the first stage of a project that would exploit the river to its full 18 MW capacity. Electricity would be sold to ENEE, the Honduran national utility. FENERCA is providing business plan development support.
- La Esperanza Hydro (Honduras): 1.1 hydro MW project. The project's total cost has been estimated in \$1,100,000. FENERCA is currently providing business plan development support. La Esperanza has obtained the necessary Environmental License from the Energy Secretariat and is expecting to conclude its feasibility study soon.
- Riachuelo Hydro (Honduras): Hydro project currently under development by the enterprise Invercerna, with a total capacity of 400 kW. The project is currently finalizing its pre-feasibility study and expects to receive technical assistance funds from a local organization to complete its feasibility phase. The project's total cost is \$728,000. FENERCA is currently providing business plan development services.
- Cenit (Honduras): The project aims to replace the main equipment at a hydro plant that has been operating since 1993 and that was affected by hurricane Mitch. The developer is currently developing the necessary investment plan, with FENERCA's assistance and E&Co is also considering a possible investment.
- Solaris (Honduras): Solaris is an Honduran enterprise that sells, installs and services PV systems in the southern region of the country. The company aims to install approximately 3,000 in rural Honduras. FENERCA is providing business plan development assistance.
- Bronzeoak (Nicaragua): This is a renewable energy project-development enterprise. Currently, the company has three projects in its portfolio of 1 MW, 1.4 MW and 4 MW in size. The projects would all sell electricity to agro-industrial companies and to the Nicaraguan wholesale market. To date, FENERCA has provided business development services and has also facilitated E&Co's consideration for investment.
- Tecnosol (Nicaragua): Tecnosol is a private company that promotes the use of renewable energy, mainly solar and wind power. The enterprise designs, installs and services renewable energy systems throughout Nicaragua. It also provides training to different stakeholder groups, including final users and NGOs. FENERCA is providing business plan development assistance as well as enterprise development support, so that Tecnosol can expand its activities.
- ATDER (Nicaragua): this is a local workers association that develops small hydroelectric projects in northern Nicaragua. Currently, ATDER is developing a rural electrification project with a total capacity of 1.3 MW. ATDER is seeking financing for construction and to train local linesworkers. The organization is also developing a nano-hydro turbine project for productive uses in the coffee areas of the country. Under Task CA6, FENERCA is providing enterprise development services and support to identify the necessary financing.

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- ADEMIPP (Panama): ADEMIPP, a Panamanian association of PV-powered irrigation systems, produced a first draft of its business plan under the assistance of FENERCA. As a result, the organization was able to assess its current market opportunities within the present conditions of Panama's energy sector. As a consequence of this exercise, ADEMIPP has decided to postpone the expansion of its operations until a clearer rural electrification strategy is defined by the government and the real market potential has been assessed.
- ANCON (Panama): an association involved in nature conservation is in charge of the project's development. The project seeks to replicate ANCON's experience with the use of PV systems in natural reserves nationwide. The systems are used to conduct environmental training sessions and to provide electricity to its control centers.
- SEDES (Honduras): this is an enterprise that manufactures and installs nano-hydro systems in coffee-growing regions in the country. The project's design has been completed and a few systems have been installed. FENERCA is assisting the organization in the development of its business plan, to seek financing to expand its operations and provide consumer financing.

Annex 2
Business Plans
Completed

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List of Business Plans Completed as of October 2001:

- La Esperanza
- ATDER
- Selmecca
- Tecnosol
- Tres Valles Co-Gen
- Ancon
- SEDES
- Atlantis
- Jones

Annex 3

Tasks CA4 & CA5:
Lists of Participants

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List of Participants in the National Seminar on Small-Scale Renewable Energy in Panama held in Panama City on November 8, 2000

Nº	Name	Charge	Entity
Expositores			
1	Michael Mihalitsianos	Director Ejecutivo	Comisión de Política Energética de Panamá (COPE)
2	Bolívar Santana	Jefe Departamento de Planeación y Proyectos	Oficina de Electrificación Rural-Fondo de Inversión Social (OER/FIS)
3	Eliécer Ching Prado	Director de Investigación y Desarrollo	Universidad Tecnológica de Panamá (UTP)
4	Ligia Lobo	Jefa de Estudios	Empresa de Transmisión Eléctrica, S.A. (ETESA)
5	Fernando Vargas de León	Coordinador Grupo Rec. Hidroeléctricos	Empresa de Transmisión Eléctrica, S.A. (ETESA)
6	Eduardo Reyes		Empresa de Transmisión Eléctrica, S.A. (ETESA)
7	Gonzalo Menéndez	Sub-Administrador	Autoridad Nacional del Ambiente (ANAM)
8	Fernando Alvarado	Director para Latinoamérica y El Caribe	E&Co-LAC
9	Arnoldo Lombardo	Gerente de Microcrédito	Banco de Desarrollo Agropecuario (BDA)
Patrocinadores			
10	Felipe Frederick	Encargado Proyectos	Agencia de Desarrollo Internacional de los Estados Unidos (USAID)
11	Lars Klassen	Director	Agencia de Desarrollo Internacional de los Estados Unidos (USAID)
12	Lee Roussel	Jefa Desarrollo Sostenible	Agencia de Desarrollo Internacional de los Estados Unidos (USAID)
13	Jéssica Faieta	Representante Residente Adjunta	Programa de las Naciones Unidas para el Desarrollo (PNUD)
14	Maribel Landau	Oficial de Proyectos	Programa de las Naciones Unidas para el Desarrollo (PNUD)
Instituciones Gubernamentales			
15	Manuel Banites	Encargado de Ingeniería y Servicios Industriales	Autoridad del Canal de Panamá (ACP)
16	Juan Carlos Navarro	Alcalde de Panamá	Alcaldía de Panamá
17	Lesbia Alves	Proyectos Especiales	Autoridad de la Región Interoceánica (ARI)
18	José Díaz	Representante	Ministerio de Educación- MEDUC
19	Manuel Castrillo	Coordinador de FADER	Proyecto Pobreza Rural Ministerio de Desarrollo Agropecuario (MIDA)
20	Armando Aspin	Director	Secretaría Nacional de Ciencias, Tecnología e Investigaciones. (SENACYT)
ONG s			
21	Lider Sucre	Director Ejecutivo	Asociación Nacional para la Conservación de la Naturaleza (ANCON)
22	Adonai Ríos	Director Ejecutivo	ADEMIPP – Asoc. para el Desarrollo del Micro y Pequeño Productor
23	Francisco Rivas	Asesor	Asociación para la Promoción de Nuevas Alternativas de Desarrollo-APRONAD
24	Isel Rojas	Representante	Asociación, para el Fomento del Turismo Autosostenible (AFOTUR)
25	Esther Kwai Ben	Administradora	Caritas Arquidiocesana
26	Carlos Garido		Eco Darien Development Foundation
27	Rosario De Silvera	Gerente General	Fondo de Modernización Tecnológica (FOMOTEC)
28	Mariela Fruter	Representante Legal	Fundación de Acción Social por Panamá- FAS Panamá

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29	Yolanda Jiménez	Representante	Fundación NATURA
30	Enidd Sopalda	Coord. Técnica	Fundación Panameña de Servicios Ambientales (FUPASA)
31	Paine Castañeda		Fundación Pro Niños Del Darién
32	Eliécer Paredes	Gerente	IEM
33	Isabelom Isarama	Presidente	Kundra Eúari Embera
34	Samuel Marcial	Director	Naturaleza y Sociedad-NASO
35	Yariela Gallegos	Directora Administrativa	Patronato del Servicio Nacional de Nutrición.
36	Julio Rodríguez	Administrador	Proyecto Bio Darién
37	Loyda Sánchez	Directora	Sociedad Audubon de Panamá (SAP)
38	Carlos Rothery	Director	SOLARPAN
39	Glenda Bonamico	Gerente Capacitación	SONDEAR
40	Mirei Endara	Directora	The Nature Conservancy (TNC)
<i>Instituciones Financieras</i>			
41	Maribel Vergara	Gerente General	Banco Continental
42	Jaime Torres	Subgerente General Ejecutivo de crédito	Banco de Desarrollo Agropecuario (BDA)
43	Jorge Vallarino	Gerente	Global Bank Corporation
44	Heriberto Garay	Supervisor Electricidad	Grupo MELO, S.A.
<i>Empresas Privadas</i>			
45	Eduardo de la Guardia	Gerente General	Compañía Petroeléctrica de Panamá , S.A. (COPESA)
46	David Sundstrom	Gerente General	Empresa de Generación AES Panamá, Energy, S.A.
47	Alejandro Arango	Gerente	Energía Renovable de Panamá
48	Vicente Puga	Director General	Pass Panamá
49	Jaime Arosemena	Gerente	Petro Eléctrica S.A.
50	Salvador Sánchez	Presidente	Refinería Panamá
<i>Centros de Educación</i>			
51	Silvestre Díaz	Director Ejecutivo	Centro de Investigación y Docencia de Panamá -CIDPA
52	Benigno Vargas	Decano	Facultad de Ingeniería Mecánica /UTP
53	Ramón Argote	Vice-rector Invest., Posgrado y Extensión	Universidad Tecnológica de Panamá
<i>Organizadores</i>			
54	Rosa Montañez	Directora Ejecutiva	Centro Internacional para la Capacitación Ambiental (CICA)
55	Roxana Segundo	Asistente	Centro Internacional para la Capacitación Ambiental (CICA)
56	José María Blanco	Director Regional	Biomass Users Network, Centroamérica (BUN-CA)
57	Leonel Umaña	Oficial de Proyectos	Biomass Users Network, Centroamérica (BUN-CA)
58	Orlando Aguilar	Consultor para Panamá	Biomass Users Network, Centroamérica (BUN-CA)

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List of Participants in the
Financial Engineering Workshop for Financial Institutions
held in Guatemala on January 23, 2001

N°	Name	Charge	Entity
<i>Invitado de honor</i>			
1	Rodolfo Santizo	Viceministro de Energía	Ministerio de Energía y Minas
<i>Participantes</i>			
2	Victor Hugo Hernández	Analista, representante	BCIE – Guatemala
3	Cesar Tampan	Subgerente Banca Corporativa	Banco de Exportación, BAÑES
4	Horacio Leiva Madrid	Subgerente de negocios	Banco Reformador
5	Celso Rolando Molina	Analista	BANRURAL
6	Cesar Ríos	Analista	Corporación de Occidente
7	Guillermo Rodas Santos	Asesor Financiero	COOPEDERU
8	David Kittelson	Director Regional (C.A.)	NRECA
9	Marta de Rivera	Gerente General	SD Río Hondo
10	Orlando Aguilar	Representante Panamá	BUN-CA
11	María Engracia de Trinidad	Representante Nicaragua	BUN-CA
12	Ana Cristina Zepeda	Representante Honduras	BUN-CA
13	Ana María González	Representante El Salvador	BUN-CA
14	Luis Aké	Representante Belice	BUN-CA
15	Jorge Luis Galindo	Representante Guatemala	BUN-CA
16	Gilbert Masís	Director Operaciones	BUN-CA
17	Joost Siteur	Oficial de Proyectos	BUN-CA
18	Sergio Guillén	Oficial de Inversiones	E&CO/LAC
19	Deborah McGinn	CFO	E&CO/USA
<i>Organizadores</i>			
20	José María Blanco	Director Regional	BUN-CA
21	Leonel Umaña	Oficial de Proyectos	BUN-CA
22	Fernando Alvarado	Gerente Regional	E&CO/LAC
23	Gina Rodolico	Program Manager	E&CO/USA
24	Johanna Hjerthén	Directora Latinoamérica	E&CO/USA

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List of Participants in the Financial Engineering Workshop for Financial Institutions held in Honduras on February 27, 2001

Nº	Name	Entity	Charge
<i>Participantes Instituciones Financieras</i>			
1	Margie Godoy de Casanova	Banco Credomatic	Oficial de Crédito
2	Claudia M. Zelaya	Banco de la Producción	Oficial de Crédito Corporativo
3	Julio Perdomo	Banco de la Producción	Analista de Crédito Corporativo
4	Ana Maria Matamoros	Banco Hondureño del Café	Jefe de Crédito
5	Carlos Borjas	Banco Capital	Oficial de Crédito
6	Enrique Ponce	Banco Futuro	Gerente de Crédito
7	Jorge A. Villalobos	Banco Nacional de Desarrollo Agrícola	Supervisor de Crédito
8	Melissa Stefan	Banco Mercantil	Asistente Gerencia de Crédito
9	Juan J. Mourra	Banco Mercantil	Finanzas
10	Jony Rodríguez	Banco de los Trabajadores	Oficial de Crédito
11	Flavio E. García	Banco Atlántida	Asistente Estudios Economicos
12	Marco A. Pérez	Grupo BGA Ahorro Hondureño	Gerente Analisis Financiero
13	Pedro Emilio Banegas	BCIE	Analista de Proyectos
14	Ernesto Berganza	BCIE	Jefe Depto. SEPCO- Infraestruct
15	Jorge Chain Reyna	Banco Sogerin	Jefe de Mercadeo y Negocios
<i>Participantes Organizaciones Micro crédito</i>			
16	Ricardo Membreño	Solaris S.A.	Gerente General
17	Marco T. Banegas	FONAPROVI	Consultor
<i>Expositores</i>			
18	Suyapa Zelaya	OICH	Director Energético
19	Diana Solís	Soluz Honduras	Directora Enlace Institucional
20	Jorge Morales	BCIE	Analista Financiero
<i>Organizadores</i>			
21	Ana Cristina Zepeda	BUN-CA	Consultora para Honduras
22	Johanna Hjerthén	E&Co-USA	Directora para Latinoamérica
23	Fernando Alvarado	E&Co-LAC	Director Regional para Latinoamérica
24	Lorna Li	E&Co-LAC	Oficial de Inversiones
25	José María Blanco	BUN-CA	Director Regional
26	Leonel Umaña	BUN-CA	Oficial de Proyectos

FENERCA FINAL REPORT

List of Participants in the
Financial Engineering Workshop for Financial Institutions
held in Panama on April 3, 2001

Nº	Name	Entity
<i>Participantes</i>		
1	Augusto Tejeira	Banco Continental
2	Abey Saied	Banco Continental
3	Jaime Torres	Banco de Desarrollo Agropecuaria BDA
4	Arnoldo Lombardo	Banco de Desarrollo Agropecuaria BDA
5	Idalia Sáenz	Banco del Istmo
6	Evelyn Acosta	Banco General
7	Carlos Becerra	Banco Nacional de Panamá
8	Juan Cárdenas B.	Banco Nacional de Panamá
9	Raúl Guizado	BIPAN
10	Carlos Arjona	METROBANK
11	Errol Alvarez	MULTICREDIT BANK INC
12	Gorge Jaen	GLOBAL BANK
13	Edison Jaen	UNION FENOSA
14	Román Ricord	UNION FENOSA
15	Carmen Lay	Autoridad Nacional del Ambiente
16	Roberto Carrillo	PNUD
17	José María Quintero	CREDIFUNDES
<i>Organizadores</i>		
18	José María Blanco	BUN-CA
19	Leonel Umaña	BUN-CA
20	Fernando Alvarado	Director Regional, E&Co-LAC
21	Lorna Li	Oficial de Inversiones, E&Co-LAC
22	Johanna Hjerthen	Directora para Latinoamérica, E&Co-USA
23	Orlando Aguilar	Representante BUN-CA Panamá
24	Elmer González	Asistente Logístico

FENERCA FINAL REPORT

List of Participants in the
Financial Engineering Workshop for Financial Institutions
held in Nicaragua on April 6, 2001

Nº	Name	Entity
Instituciones Financieras		
1	Paola Ley	BDF
2	Gustavo Largaespada Beltrand	Banco Clay Dognall
3	Cristóbal Silva	BID
4	Roeger Mendieta	BANCENTRO
5	Luis E. Morales L	BANEXPO
6	Mayra López Munguía	BANIC
7	Rosa Matilde Tablada	FNI
8	Julio Ramírez Arguello	BANPRO
9	Marco A Narváez B	ASOBANP
Agencias Cooperantes		
10	Efraín Laureano	USAID
Expositores		
11	Vladimir Delagneau	TECNOSOL S.A
12	Freddy Oporta	FADES
Organizadores		
13	Leonel Umaña	BUN-CA
14	Joahana Hjerthen	E&Co
15	Kathya Fajardo	E&Co
16	José María Blanco	BUN-CA
17	Fernando Alvarado	E&Co
18	María Engracia de Trinidad	BUN-CA NI

FENERCA FINAL REPORT

List of Participants in the
Financial Engineering Workshop for Financial Institutions
held in El Salvador June 14, 2001

Nº	Name	Charge	Entity
<i>Instituciones Financieras</i>			
1	Eugenia Bonilla Velásquez	Ejecutiva de Créditos	Banco Americano
2	Francisco Segovia	Jefe Departamento de Mantenimiento	Banco Cuscatlán
3	Gilma Teresa Saravia de Pleitez		Banco De Fomento Agropecuario
4	Roger Rafael Alfaro Araujo	Gerente de Desarrollo Financiero	Banco Multisectorial De Inversiones
5	Jéssica de Cabezas		Banco Salvadoreño
6	Luis Alberto Sánchez Avelar	Gerente	Caja De Crédito De La Libertad
7	Daniel Calderón Martínez	Gerente	Caja De Crédito De Sonsonate
8	Oscar Eduardo Lindo	Gerente	Valores Cuscatlán
<i>Otros financistas</i>			
9	Alcides Hernández		CAESS
10	Luis Montesinos		CAESS
11	Manuel Saavedra		CAESS
12	Mirna Márquez	Asesora	CAESS
13	Balmore Amaya	Unidad Ambiental	Comisión Ejecutiva Hidroeléctrica Rio Lempa
<i>Otros participantes</i>			
14	Mauricio Ayala	División Desarrollo Limpio	MARN
15	Carolina de Dreykon	Oficial Programa de Medio Ambiente	PNUD
<i>Expositores</i>			
16	Ana María González	Proyecto "Energización con Base en Recursos de Energía Renovable"	MARN
17	Arturo Solano	Gerente	Tecnosolar

FENERCA FINAL REPORT

List of Participants in the Workshop on Financial Engineering for Development Organizations held in Guatemala on January 23, 2001

Nº	Name	Charge	Entity
<i>ONG's (de desarrollo y microcrédito)</i>			
1	Rafael Valladares	Gerente Unidad M.A.	Fondo de Inversión Social, FIS
2	José Manuel Larios	Coordinador Org. Comunit.	Fundación Guacamaya
3	Flor de Mayo Pacheco	Directora Ejecutiva	Fundación Guacamaya
4	Leonor Rodríguez	Oficial de Créditos	Fideic. para la Conservación de Guat.
5	Mynor David Maldonado	Gerencia de proyectos	FUNRURAL
6	Marcel Clement	Consultor de Proyectos	FUNRURAL
7	Julio Adán Paz	Técnico de Proyectos	ADESFA-PPS
8	Amilcar Laparra	Presidente CBUB	Asociación Guatemala Maya Tacaná
9	Homero Morales	Vicepresidente	Asociación Guatemala Maya Táchana
10	Oscar Coto	Coordinador programa SAs	Fundación Solar
11	Joost Siteur	Oficial de Proyectos	BUN-CA
12	Gilbert Masís	Director Operaciones	BUN-CA
13	Deborah McGinn	CFO	E&CO/USA
14	Sergio Guillén	Oficial de Inversiones	E&CO/LAC
<i>Sector Privado</i>			
15	Carlos Manuel Galich	Presidente	TEDEP
16	Raúl Aguilar	Gerente	DEESA
17	David Kittelsen	Director Regional (C.A.)	NRECA
18	Hugo Arriaza	Director de Proyectos	NRECA
19	Azucena Porras	Gerente	Dintersa
20	Erick González	Gerente	Hidroxsol
21	Marta de Rivera	Gerente General	SD Río Hondo
22	W.B. Smith	Presidente	HISINC, L.L.C.
23	Carlos Tschen	Presidente	DEESA
24	Marco Antonio Santizo	Gerente General	SELMECA
<i>Sector Público</i>			
25	Benjamín Solórzano	Coord. Electrificación Rural	Dirección General de Energía; MEM
26	Rosa María Ordóñez	Asesor	Dirección General de Energía, MEM.
27	Raymundo Velásquez	Consejal IV	Municipalidad de Tacaná
28	Rudy Bravo	Gerente Operativo	Empresa Eléctrica Munich. de Sn Marcos
<i>Patrocinadores</i>			
29	Ana Victoria Rodríguez	Directora de Proyecto	Proyecto Promoción en Prod. más limpia
30	Ricardo Rivera	Asesor de Proyectos	Programa Pequeños Subsidios a ONGs
31	José Luis de Francisco	Oficial de programas	PNUD – Guatemala
32	Zoila Aurora Letona	Asistente Programa	USAID
<i>Representantes BUN-CA en Centroamérica (capacitación)</i>			
33	Orlando Aguilar	Representante Panamá	BUN-CA
34	María Engracia de Trinidad	Representante Nicaragua	BUN-CA
35	Ana Cristina Zepeda	Representante Honduras	BUN-CA
36	Ana María González	Representante El Salvador	BUN-CA
37	Luis Aké	Representante Belice	BUN-CA

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38	Jorge Luis Galindo	Representante Guatemala	BUN-CA
<i>Organizadores</i>			
39	José María Blanco	Director	BUN-CA
40	Leonel Umaña	Oficial de Proyectos	BUN-CA
41	Gina Rodolico	Program Manager	E&CO/USA
42	Johanna Hjerthén	Directora Latinoamérica	E&CO/USA
43	Fernando Alvarado	Gerente Regional	E&CO LAC

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List of Participants in the Workshop on Financial Engineering for Development Organizations held in Panama on April 2, 2001

N°	Name	Entity
<i>ONG's</i>		
1	Adonai Ríos	ADEMIPP
2	Ingrid Schreiber	AFOTUR
3	Lanay de Boza	ANCON
4	Francisco Rivas	APRONAD
5	Maruquel Castellero	CATHALAC
6	Luis Torres	CATHALAC
7	Celedonio Moncayo	Centro para la Promoción del Desarrollo Sostenible
8	Araceli Rodríguez	CIDPA
9	Israel Ruíz	Compañía Azucarera La Estrella, S.A.
10	Omar E. Roca	Energía Renovable de Panamá
11	Anne Brunia	FAS Panamá
12	Nelson Caballero	FEDISPAN
13	Martin Valdés	FOMOTEC
14	Yolanda Jiménez	Fundación Natura
15	Carlos R Bryan	Hidro Panamá
16	Jaime Contreras	ICIESA
17	Detlev T. Umbach	INTERGEO
18	Anabella Morales	INTERGEO
19	Vicente Puga	Pass Panamá
20	Reynaldo Bermúdez	PROCOSOL
21	Carmen Hidalgo	PRODESO
22	José Espinoza	SENACYT
23	Carlos Rothery	SOLARPAN
24	Raúl Núñez	ALAP
25	Itzel Rojas	AFOTUR
26	Reynaldo Bermudez	PROCOSOL
<i>Sector Gubernamental</i>		
27	Michael Mihalitizianos	Comisión de Política Energética (COPE)
28	Armando De Gracia	Oficina de Electrificación Rural (OER)
29	Ana Cecilia Fuentes	Patronato Nacional de la Nutrición
30	Carlos Iglesias	Comisión de Política Energética (COPE)
<i>Sector Universitario</i>		
31	Félix Henríquez	Facultad de Ingeniería Mecánica (UTP)
<i>Organizadores</i>		
32	José María Blanco	BUN-CA
33	Leonel Umaña	BUN-CA
34	Fernando Alvarado	E&Co-LAC
35	Lorna Li	E&Co-LAC
36	Johanna Hjerthen	E&Co-USA
37	Orlando Aguilar	Representante BUN-CA, Panamá
38	Elmer González	Apoyo Logístico

FENERCA FINAL REPORT

List of Participants in the Workshop on Financial Engineering for Development Organizations held in Nicaragua on April 5, 2001

N°	Name	Entity
ONG s		
1	Julio Cardenas	AGRODERSA
2	José Angel Martínez	ASOJNCA
3	Aleyda Morales	ATDER-BL
4	Gabriel Pasos	CADIN
5	Martha Azucena Gutiérrez	CARUNA
6	Karina Augever	Centro Girasoles Proceso
7	Mercedes Escorcía	CEPRODEL
8	Aldo Palacio	Comunicadores Ambientales
9	Luis Taraga	ECAMI
10	Bo Ekstrand O	Eficontrol
11	Juan Izaga	ENES
12	Freddy Oporto Reyes	FADES
13	Danilo Sánchez	FUNISDECI
14	Ronald Medina D	FUNPROTECA
15	Mavela Mejía	Grupo FENIX
16	Ricardo Arias Zamora	INE
17	Irving Larios	INGES
18	Domingo Bolaños Vega	INTA
18	Noel Sacasa A	NSEL
20	Enrique Pérez	Programa Bolívar
21	Serafín Filomeno	PROLEÑA
22	Virgilio Bravo	Proyecto FADES
23	Susan Kinne	Proyectos fuentes Alternativas
24	Francesco Rezzonico	SEEIMZO
25	Elizabeth Rizo	UNICAFE
Sector Gubernamental		
26	Ricardo Mendoza	CNE
27	Jorge Teran G	CNE
28	Augusto Teran	Instituto de Desarrollo Rural
29	José Antonio Viteri	Cambio Climático
Sector Privado		
30	Federico Barrios	ENISA
31	Miguel Barrios	ENISA
32	Berta de León	Privado
33	Francisco Mojica	Privado
34	Araceli Hernandez	SUNI SOLAR
35	Vladimir Delagneau	TECNOSOL S.A
36	Jorge López	TECSOL S.A
37	Anabel Moncada	Tipitapa Power Co.
38	René Arce	Union Fenosa
Agencias Cooperantes		
39	Adolfo Castrillo Q	PNUD
40	Fiona Blum	PNUD
41	Rosemary Vega	PNUD

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42	Julio Cesar Sánchez	PNUMA
Organizadores		
43	Leonel Umaña	BUN-CA
44	Joahana Hjerthen	E&Co-USA
45	Katia Fajardo	E&Co-LAC
46	José María Blanco	BUN-CA
47	Fernando Alvarado	E&Co-LAC
48	María Engracia de Trinidad	BUN-CA Nicaragua

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List of Participants in the Workshop on Financial Engineering for Development Organizations held in El Salvador on June 15, 2001

Nº	Name	Charge	Entity
<i>Organizaciones de Desarrollo</i>			
1	Vladimir Bolaños		Acc Am
2	Adolfo Sánchez		Fundación Proesa
3	Rafael Granados		Fuprodeh
4	Alisha Herrick	Volunteer	Peace Corps, El Salvador
5	Mattew F. Porth	Program Manager	Peace Corps, El Salvador
6	Luz de Maria Tomasino		REDES Fundación Salvadoreña para la Reconstrucción y el Desarrollo de El Salvador
7	Israel Martínez	Gerente de Producción y Beneficiado de Café	Ucraprobex
<i>Universidades</i>			
8	César Villalta	Jefe de Departamento	Universidad Centroamericana "José Simeón Cañas"
9	Jorge Alberto Basagoitia		Universidad Don Bosco
<i>Municipalidades</i>			
10	Juan Osmín Estrada González	Alcalde	Alcaldía Municipal De Apopa
11	Rafael Antonio Monterrosa	Director Escuela de Empresas	Alcaldía Municipal De Nejapa
12	Sergio Vladimir Quijada	Concejal	Alcaldía Municipal De Nejapa
<i>Empresas Privadas</i>			
13	Alejandro Quintanilla		CASYS, S.A. De C.V
14	Mauricio Alfonso Arévalo	Gerente de Producción	Central Hidroeléctrica Sensunapan
15	Jacqueline Reyes		Cesta
16	Axel Söderberg		Dematheu & Cia
17	César Catani		Dematheu & Cia
18	Alberto J. Valdivieso		Hacienda Chaparral
19	José Mario Vásquez	Consultor	JV Consultores S.A. de C.V.
20	Juan Carlos Sol	Presidente	Servicios Solar
21	Arturo Solano	Gerente	Tecnosolar
22	Antonio Roshardt		Texma
23	Eric Roshardt		Texma
<i>Entidades Gubernamentales</i>			
24	Ana María González	Coordinadora Proyecto de Energización con Energías Renovables	MARN
25	Mauricio Ayala	División de Desarrollo Limpio	MARN
26	Jorge Rovira	Dirección de Energía Eléctrica	MINEC
27	Rigoberto Contreras	Dirección de Energía Eléctrica	MINEC
28	Salvador Rivas	Dirección de Energía Eléctrica	MINEC

Annex 4

Task CA7:

**“Developing Regulatory and
Policy Options for
Renewable Energy Projects
in Central America”.**

Annex 5
Task CA9:
BUN-CA Final Report
BUN-CA Business Plan

Annex 6
Task XC1:
Off-Grid Services
Manual

Annex 7
TaskXC2:
Carbon Manual for
Renewable Energy
Entrepreneurs

Annex 8
Task MME:
Sample Report

FENERCA FINAL REPORT

TASK CA3: ENTERPRISE DEVELOPMENT SERVICES AND COMPLETION OF BUSINESS PLANS

(Task Manager Report – for the period July 18, 2001 –October 18, 2001)

OBJECTIVES: assist energy entrepreneurs to organize, complete and present their projects or enterprises

EXPECTED RESULTS: * 200 enterprises contacted

* 20 enterprises or projects supported

* 15-20 business plans or proposals ready for presentation to next stage funders

* US\$270,000 of enterprise development support provided in the form of technical assistance

* US\$10 million estimated project/enterprise value

* Minimum 2 enterprise in each country

* Representation of 5 renewable energy technologies

	At Oct.18 2001	Expected	Actual October 2001
Number of enterprises contacted:			
El Salvador:	92	200 enterprises contacted throughout program implementation	
Guatemala:	26		
Honduras:	82		
Nicaragua:	93		
Panamá:	40		
Number of enterprises or projects supported:			***
El Salvador:	2	20 enterprises or projects supported throughout program implementation	
Guatemala:	5		
Honduras:	8		
Nicaragua:	3		
Panamá:	2		
Number of business plans developed:			+++
		5 by October 2000 6 BP by December 2000 10 BP by March 2001 15 BP by May 2001 20 BP by August 2001	
El Salvador:	2		
Guatemala:	3		
Honduras:	5		
Nicaragua:	2		
Panamá:	2		
Number of business plans submitted to financial institutions:			^^^
<i>El Salvador:</i>	2	5 BP under review by February 2001 10 BP under review by April 2001 15 BP under review by June 2001 20 by September 2001	
Guatemala:	5		
Honduras:	8		
Nicaragua:	3		
Panamá:	2		
Dollar value of enterprise development support assistance: (US\$270,000 budgeted)	US\$140K Spent (CA3&6)	US\$155,000 staff time (EDS) Budgeted through October 2001(Task CA3) and US\$77,500 budgeted through October 2001 (Task CA6)	
<i>El Salvador:</i>			
Guatemala:			
Honduras:			
Nicaragua:			
Panamá:			
Estimated project cost:	\$120 M		
Estimated work completed to date: (as a percentage):	90%		*+^

FENERCA FINAL REPORT

Provide a brief description of activities undertaken during reporting period as part of this task and name persons involved, with approximate time spent per person.

<i>WHO</i> <i>(name of person in charge of specific activity and organization)</i>	<i>SPENT</i>	<i>TOTAL TIME</i>	<i>WHAT</i> <i>(description of specific activity) (in hours or quarter hours)</i>
<i>Fernando Alvarado</i>			
Lorna Li			
Jose Ma. Blanco			
Gilbert Masis			
Joost Siteur			
Leonel Umaña			
In country reps			

*****Please list enterprises supported:**

(Please complete the following list, indicating what type of support has been provided – whether EDS and/or business plan development assistance- and add any projects/enterprises as applicable).

	EDS	BP development	Funding provided (\$)		
			E&Co	Bun-Ca	Other
Tecnosolar (El Salvador)					
EEN (El Salvador)					
San Judas (Guatemala)					
Chan Chan (Guatemala)					
Jones (Guatemala)					
Geoteca (Guatemala)					
OTHERS (Please specify)					
Please specify in each case, the projects current status (pilot phase', in operation, close to financial closure, etc..)					

+++Please list BP developed (please update as applicable and email copies of business plans developed to date to E&Co Bloomfield):

^^^Please list BP plans submitted and specify to which institutions (please update as applicable):

***+^Please describe work remaining**

Annex 9

Financial Report