



OCCASION

This publication has been made available to the public on the occasion of the 50th anniversary of the United Nations Industrial Development Organisation.



DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as "developed", "industrialized" and "developing" are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

FAIR USE POLICY

Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

CONTACT

Please contact <u>publications@unido.org</u> for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at www.unido.org

22936



CONTRACTOR'S FINAL PROGRESS REPORT

CONTRACT NO. 02/054

UNIDO Project No. GF/CUB/01/002



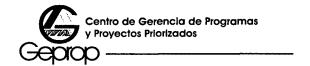
GENERATION AND DELIVERY OF RENEWABLE ENERGY BASIC MODERN ENERGY SERVICES IN CUBA – ISLA DE LA JUVENTUD

(GEF/UNIDO Project GF/CUB/01/002)

FINAL PROJECT PROGRESS REPORT - October 2002-May 2003

In brief, major activities undertaken and completed till the end of May 2003 are as follows:

- Strategy to ensure financial sustainability of the project and cofinancing linkages developed and integrated.
- Policy and institutional issues analyzed and integrated into the project.
- Assist UNIDO in developing draft Project Brief including full incremental cost analysis and co-financing.



IMPORTANT ACTIVITIES DETAILS

 Strategy to ensure financial sustainability of the project and cofinancing linkages developed and integrated.

The up-front capital costs of proposed alternative is higher than the respective baseline projects, i.e. fuel oil based thermal power plant of equivalent capacity. A fund to provide high upfront costs has been proposed for support through GEF funds.

Agreements will be reached with the project developers to create a Contingent Fund to ensure long term replicability and to share risks with investors and an Incentive Fund on successful performance of the project. As it is unlikely that the project activities would take place in the absence of UNIDO and GEF support, the project can largely be considered to be incremental.

The contingent fund will add up to US\$ 962,231 and it will consist on a reimbursable fund for a pipeline of biomass and wind projects, for risk mitigation and for pre-feasibility and feasibility studies for projects in the pipeline. This contribution, that is an incremental cost, will be provided by the GEF.

The Incentive Fund will allocate a maximum of US\$ 1,596,000 spread over the payback period of each business unit, based on performance estimated during the PDF-B phase. This contribution, that is also an incremental cost, will be provided by the GEF.

The total initial investment for implementing an alternative option, based on biomass materials and wind resources, works out to US\$ 13,991,000. The difference being the incremental cost for implementing this project is estimated at US\$ 12,189,000. The incremental cost component related to Technical Assistance and Capacity Building will account for a large part of the incremental



costs for removal of general barriers. This additional incremental cost been estimated at US\$ 3,300,000.

The GEF is only being asked to supply US\$ 2,640,000 for the Technical Assistance and Capacity Building component. UNIDO, the Government of Cuba and co-financing will provide the rest.

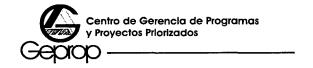
Brief cost summary

	Amount		% of total	
GEF		0,00	0,00%	
Cuban Government contribution		1,07	10,00%	
Private Investment		9,62	90,00%	
Other sources		0,00	0,00%	
Total Project Investment Funds		10,69		

	Amount	% of Total	
GEF		2,635	79,85%
Cuban Government contribution		0,495	15,00%
Private Investment			0,00%
Other sources		0,17	5,15%
Total technical assistant		3,3	

	Amount needed	GEF contribution I	ncremental cost
Investment Fund	10,69	0,96	8,89
Technical Assistant	3,30	2,64	3,3
Incentive Fund	1,24	1,24	1,24
Total	15,23	4,84	13,43

	Initial Investment needed	Contingent fund contribution	Percentage	Private Investment needed
Biomass production	792.000	79.200	10%	712.800
Gas for power production	2.835.000	283.500	10%	2.551.500
Gas for heat production	865.313	86.531	10%	778.781
Electricity Production	3.465.000	346.500	10%	3.118.500
Wind Energy	1.665.000	166.500	10%	1.498.500
Total	9.622.313	962.231		8.660.081



	Contingent fund reimbursement I per year	Number of years	Total
Biomass production	15.000	4	60.000
Gas production	60.000	4	240.000
Electricity Production	80.000	4	320.000
Wind Energy	27.000	1	27.000
	Incentive fund	Description	
Biomass production	382.439		
Gas production	696.032		
Electricity Production			
Wind Energy	518.000		
Total	1.596.471		

Co-financing linkages have also been taken into account during this period. So far four international company have expressed interest in investing in the project:

- SANFI a Cuban enterprise which is budgeted by investors coming from Chile and Canada.
- Lahmeyer International, a German Engineering Enterprise. expressed its position of seeking up funding and investing in the project, provided the project feasibility studies being backed up by recognized foreign Energy Advisor Company.
- KUNKEL INVESTMENT an investor based in Germany.
- Progesam an investor based in Italy.

We have already received letters of intent from Lahmeyer International and Kunkel Investment. SANFI will be sending its letter by the end of May month after the company stakeholder meeting. Progesam has made offers pending on further thoughts.

Kunkel Investment and SANFI have expressed their position of investing in all components comprising the project.



 Policy and institutional issues a nalyzed and integrated into the project.

Policy and institutional issues have been clearly set up in project documents. GEPROP will assure the functioning of such interrelation among those involved in project development.

Co-financers ultimate identification will allow precising the best institutional arrangement for successful project implementation.

 Assist UNIDO in developing draft Project Brief including full incremental cost analysis and co-financing

During the whole period this brief document is reporting on, project team has been in close contact with UNIDO officials for developing the Draft Project Brief including cost analysis and co-financing.

For working out final document for being submitted to GEF approval, nine formerly document version were developed.

Note: According to Terms of Reference for Contracting Agency defined in project contract (CONTRACT NO. 02/054) there are eight outputs of specifics activities undertaken by agency mentioned above. Outputs from (a) to (d) have already been completed and accepted. They were also included in previous project progress reports. Outputs from (e) to (g) are presented in this final progress report. Output (h) is pending on project brief approval by GEF.



NATIONAL STEERING COMMITTEE

Chair:

GEF Local Focal Point Jorge Luis Fernandez Chamero

Direction for Foreign Cooperation.

CITMA. Director.

Members:

GEPROP Alfredo Curbelo. Project Director

MINVEC Pedro Morales. Director, DOE

Ministry of Economic Lauro Casadevalle. Director and Planning Energy Audit

IJ Administration Council Leonardo Cruz. Administration

Council Member

UNE. National Utility Leandro Matos. Technical Director

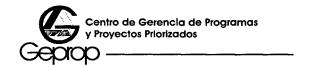
National Forestry Company Ciro Milian. Forestry Director

UNIDO Florentino Chacon. UNIDO

Habana Office

CUBASOLAR. Cuban NGO Luis Berriz. President of Cuba Solar

for the promotion of Renewable Energy



PROJECT EXECUTIVE COMMITTEE

Project Director. GEPROP Alfredo Curbelo

GEF Local Focal Point. DCI Grisel Alonso

UNIDO Florentino Chacon
MINVEC Dolores Marreros
Team head Oscar Jimenez

PROJECT TEAM MEMBERS

Team head Oscar Jimenez
Economist Arelis C. Rivera Egües.
Natural Resource Gustavo Martin

Management

Assistant Belkis Machin IJ contact Jorge Suris