

United Nations Development Programme (UNDP), Cuba

**Final Evaluation Project No. 1:  
Capacity Building for Planning, Decision Making and Regulatory  
Systems & Awareness Building / Sustainable Land Management  
in Severely Degraded Ecosystems PIMS 3806**

Period November 2008 – December 2014

Project ID number in ATLAS: P1.-00049239

PIMS Number: P1.-3806

Focal Area (GEF3): OP 15 Sustainable Land Management

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I would like to express my gratitude to all the actors and agencies that have participated in the assessment of Project No.1, especially to the team of the CPP program: P1 and P5 Project. As a team you have done a great job and you notice the success achieved. When visiting the area of influence of P1 across Cuba, I saw that as a team you have not only invested your knowledge and skills, but you also put your heart in it. Your passion for the work has created something very special for the environment, farmers and Cuban society.

I want to thank the producers who received us, for their frankness and the enthusiasm with which they have participated in this evaluation, in labor days, holidays and Sundays. I wish that the effort put in your work for sustainable land management is successful and has a social, economic and ecological impact for you, and your families and your communities.

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# 1. Executive summary

**Figure No. 1: Summary of the project.**

Project Title:	Capacity Building for Planning, Decision Making and Regulatory Systems & Awareness Building / Sustainable Land Management in Severely Degraded Ecosystems			
GEF Project ID:	00049239		<i>at endorsement (Million US\$)</i>	<i>at completion (Million US\$)</i>
UNDP Project ID:	3806	GEF financing:	3,500,000	3,500,000
Country:	Cuba	IA/EA own:		
Region:	Latin America and the Caribbean	Government:	25,192,383	37,699,281
Focal Area:	Land Degradation	Other:	629,148	
FA Objectives, (OP/SP):	GEF 3 OP15	Total co-financing:	25,821,531	37,699,281
Executing Agency:	Agencia de Medio Ambiente; Ministerio de Ciencias, Tecnología y Medio Ambiente (CITMA)	Total Project Cost:	29,321,531	41,199,281
Other Partners involved:	ProDoc Signature (date project began):		17-11-2008	
	(Operational) Closing Date:	Proposed:	Actual:	
			30-11-2014	

## Brief description of the project.

The Country Programme Partnership (CPP) is designed to directly implement the programmatic orientation of the National Program to Combat Desertification and Drought in Cuba and provide a comprehensive framework for the implementation of projects assisted by various agencies of the GEF.

Project No. 1: "Capacity building for planning, decision-making, regulatory systems and sensitization / sustainable land management in severely degraded ecosystems" is part of the CPP and had a duration of six years. Originally it was five years but it had an extension for another year, so its finalization was in December 2014. According to the Regulations of the GEF, this project needs a final evaluation.

The aim of project P1 is: "Train and raise awareness for planning, decision making and necessary regulation for the implementation of SLM in Cuba" and aims to respond to the challenge by building the following results:

- The planning, decision-making and coordination systems work at the national, provincial and local levels;

- Cognitive skills and the sensitization are developed, implemented, tested and validated at the local level;
- A comprehensive model of sustainable land management in severely degraded drylands for application in small scale landscapes has been tested and implemented, with potential for replication in many other places in Cuba, and
- A model for climate monitoring and land degradation has been implemented and tested with potential for replication in many other places in Cuba.

**Figure No. 2: Classification of project performance**

<b>Evaluation Ratings:</b>			
<b>1. Monitoring and Evaluation</b>	<i>rating</i>	<b>2. IA&amp; EA Execution</b>	<i>rating</i>
M&E design at entry	Highly satisfactory	Quality of UNDP implementation	Highly satisfactory
M&E Plan Implementation	Satisfactory	Quality of Execution - Executing Agency	Highly satisfactory
Overall quality of M&E	Satisfactory	Overall quality of Implementation / Execution	Highly satisfactory
<b>3. Assessment of Outcomes</b>	<i>rating</i>	<b>4. Sustainability</b>	<i>rating</i>
Relevance	Highly satisfactory	Financial resources:	Likely
Effectiveness	Highly satisfactory	Socio-political:	Likely
Efficiency	Highly satisfactory	Institutional framework and governance:	Likely
Overall Project Outcome Rating	Highly satisfactory	Environmental :	Likely
		Overall likelihood of sustainability:	Likely

**Summary of findings, recommendations and lessons learned.**

The project design is adequate in the sense of its strategy. The goal is feasible and meets the needs mentioned. The result, products and indicators have a good articulation among themselves. The definition of risk is insufficient because it is oriented to project management and does not cover other important risks: environmental, cultural and socio-economic.

The main focus of the P1 project is focused on strengthening national capacities for Sustainable Land Management and on the demonstration in the field of alternatives tailored to the extreme weather conditions. Analysis of project stakeholders in its design is very comprehensive and covers the entire social spectrum of individual farmers, members of cooperatives, peasant leaders, community leaders, workers of state enterprises, extension of ministries and actors.

The project has good results and experiences can be replicated in projects 2, 3 and 4 and in provincial and municipal polygons for the conservation of soil, water and forest. Risk management is very effective, especially through its instrument, which is the adaptive management. Monitoring and evaluation work and the recommendations of the mid-term review have been incorporated into the annual work plans and into certain restructuring of the project.

The P1 has several key aspects: creating systemic and institutional capacity in the territories of the provinces where it was implemented, including the creation of interdisciplinary teams on the issues and institutions working for SLM criteria.

The creation of a model of integration and cooperation between the actors of the institutional and local levels with capacity building at the national, provincial and local levels was achieved, which will support national planning and coordination needs. This model is important because it matches the national policy. It is effective because it achieves results and is installing efficient investment of resources. The tuning in working with the government gives a likely sustainability.

The socio-economic impacts on communities of the demonstration sites and areas of replication is another essential aspect in the P1, achieving to change the consciousness of the producers in favor of more sustainable production that allows higher incomes than before.

The strengthening of key institutions is another essential point in the project strategy. The laboratories responsible for monitoring the biophysical soil condition in Guantanamo and Pinar del Rio are important tools for the operation of SLM; like the Meteorological Center in Pinar del Rio which has an instrument and an important methodology: The early warning weather events is a combination of different data for forecasts. This is an important condition for the success of the SLM.

Another essential element in the project strategy is the partnerships developed by P1, in its role as coordinator, working with different institutions. These alliances have managed to create and disseminate new specialists working in institutions, centers, areas of intervention and replication in the MST theme, which with its high knowledge and experience are necessary to provide sustainability to the struggle for the MST condition.

The overall probability of the sustainability of P1 regarding financial resources, socio-political conditions, institutional and environmental governance framework is likely. The project has met the essential aspects, being considered highly satisfactory.

Among the most important recommendations are the following:

### **Recommendations**

P1 actions were successful, viable and sustainable, so it is important to replicate also in the future actions of P2, P3 and P4. These actions should be prioritized so that the results of future projects are introduced in regulatory and political platforms of Sustainable Land Management. Equally important is the publication of the increases in production and of the most important advances in the results, to contribute to an international debate about SLM and the conditions necessary to implement a successful project.

For the success of future projects it is necessary to generate increases in the income of farmers, improving their knowledge and access to financing and markets, in addition to sufficient resources in consulting and training in all the demonstration sites. Sites should be expanded in the demonstration areas for the replication of good practices of SLM, which will help conserve resources like soil, water and forests, as well as increasing the diversity of animal and plant production to foster the reduction of disaster vulnerability of populations.

GEF funding should be only an initial contribution while establishing alliances with national and international donors and thus ensure the future viability and sustainability of GEF projects. The adaptation to the circumstances of Cuba in the import of equipment and supplies is necessary, considering the difficulties in this regard.

### **Lessons Learned**

Only actions that have government approval ensure long-term sustainability, so there are no contradictions between the government and the project. The policy guidelines and strategy of project P1 are attuned to the needs of producers in the SD and are the basis to produce an effective, efficient and friendly way with the environment and thus protect the long-term NR.

The exact selection of actors is important in the design of the project. For the construction of the anticipated results it is important that all stakeholders in the project are present and actively participate.

The selection of equipment and supplies that are purchased on a project of this type with imports must be acquired as early as possible, to not waste time and delay the progress of the project.

The risks can be managed with adaptive management, necessary to respond to all the problems and circumstances that arise in the way of the project.

Only an understandable language of the logical framework ensures the active participation of the producers because without them an SLM project cannot be successful.

Partnerships at all levels allow more effective and efficient use of funds. The partnership between UNDP - GEF and the government of Cuba was successful in fundraising.

Do not overload the workers of institutions with tasks outside the project to ensure the quality of their work.

## 2. Introduction

14% of Cuba's territory (1,580,996 ha) is affected by desertification, distributed in 24 edaphoclimatic subzones, generally located near the coast. The Cuban environmental strategy identifies soil degradation as the main environmental problem, with 76.8% of productive land affected by at least one limiting factor in productivity and by processes that produce desertification. *National Environmental Strategy 2011-2015*.

Four of the five environmental problems identified in the National Environmental Strategy of Cuba, are related directly or indirectly to agricultural activity (soil degradation, deforestation, pollution of land and marine waters and biological diversity) and also with the objectives underlying the United Nations Convention to Combat Desertification and Drought, which Cuba signed in 1995 and ratified in March 1997. *National Environmental Strategy 2011-2015*.

Land degradation in Cuba and worldwide has a negative impact on mankind and on the environment. If degradation is not stopped, the food security of the population is in a great danger; meanwhile degradation has a major impact on global ecosystems: Migratory birds lose their brooders, for example; Reefs die from the pollution entering the sea through the agro-systems, therefore UNDP, GEF and the Government of Cuba work in harmony to curb land degradation and implement systems of sustainable land management. *UNDP Strategic Plan, 2014-2017. National Program to Combat Desertification in the Republic of Cuba, CITMA, 2000*.

The Country Program Partnership (CPP) is a form of GEF collaboration, that meets the objectives of Sustainable Land Management (SLM) due to the diversity of environmental, social, economic and biophysical factors, acting on degraded land or in a degradation process. The diversity of tools to combat them, the time required to obtain results and impacts of the implementation of actions and the number of processes acting. *Country Program Partnership, 2014*.

Project No. 1: „Capacity Building for Planning, Decision Making and Regulatory Systems & Awareness Building / Sustainable Land Management in Severely Degraded Ecosystems is part of the CPP and has lasted six years. Originally it was five years, but it had an extension for another year, so his term was in December 2014. According to the Regulations of the GEF, a final evaluation is required. *Country Program Partnership, 2014*.

## 2.1. Purpose of Evaluation

The final evaluation by an independent external team is a requirement of the Global Environment Facility (GEF) for large and medium projects. The GEF establishes that a final evaluation should:

- Evaluate the achievements of the project;
- Synthesize lessons that can improve the selection, design and implementation of future activities of the GEF;
- Provide input to issues that require attention;
- To contribute to the analysis of the quality of monitoring and evaluation of their activities and to the analysis of their effectiveness in achieving global environmental benefits. *Guidelines for Conducting GEF Agencies in Terminal Evaluations, Evaluation Document No.3, 2008.*

The United Nations Program for Development (UNDP) in Cuba hired the subscribed evaluator, specifying he should assess:

1. The creation of systemic and institutional capacities in the territories of the provinces where Project No. 1 was implemented.
2. Impacts of Project No. 1 on economic and social indicators of the communities of the demonstration sites and areas of replication.
3. Results achieved by strengthening key institutions, such as the laboratories responsible for monitoring the biophysical soil condition in Guantanamo and Pinar del Rio and the Provincial Meteorological Center of Pinar del Rio in the implementation of the Early Warning System on weather events.
4. The partnerships developed by Project No. 1, in its role as coordinator of the program, with different institutions to disseminate and train new specialists.
5. The achievement of the objectives, outcomes / impacts and products of the project, considering the institutional and political changes that occurred in the time of implementation of the projects.
6. The implementation of the project, the role of the implementing agency, the project management structure, stakeholder participation, risk management, adaptive management, financial planning and co-financing, monitoring and evaluation of sustainability and replicability of the actions of Project No.1.
7. Problems or circumstances that may have affected project implementation and the achievement of impacts.
8. Recommendation of measures to ensure the viability and sustainability of the project and its results to guide the rest of the CPP.
9. The key lessons learned that can be spread among relevant GEF projects and between the authorities, local and national actors involved in the project and involved in the CPP. *Terms of Reference Wilfried Leupolz - International Consultant, UNDP in April 2015.*

## 2.2. Evaluation Methodology

The evaluation of the Project No. 1 began in April 26, 2015 with the presentation of the Evaluation Team and the first team meeting of the CPP program: P1 and P5 Project in Havana. *See list of interviewees.*

The first step of the methodology was to review the documents as the primary source of evaluation:

- National Program to Combat Desertification in the Republic of Cuba. CITMA, 2000.
- Document of the Country Program Partnership "Support for the Program to Combat Desertification and Drought in Cuba", 2014.
- Project Document No. 1 (Prodoc P1)
- Project Document No. 5 (Prodoc P5)
- National Environmental Strategy 2010-2015
- National Environmental Education Strategy

- I, II, III and IV National Reports from Cuba to the United Nations Convention to Combat Desertification and Drought. [www.unccd.int](http://www.unccd.int).
- Environmental Strategy of the Ministry of Agriculture
- Guidelines for the economic and social policy of the Party and the Revolution
- Correspondence of the approaches of Sustainable Land Management (SLM) with the "GUIDELINES AND ECONOMIC AND SOCIAL POLICY OF THE PARTY AND THE REVOLUTION"
- United Nations Convention to Combat Desertification
- Periodic reports of implementation of Project No. 1 y 5 2014 (PIRs 2014)
- Report of the workshops start
- Annual Operational Plans (AOP)
- Combined Expense Reports (CER)
- Strategic priorities of the GEF. *The FMAM 2020 and strategic priorities of the FMAM-6, GEF, in March 2015; Terms of Reference, Mid-Term Evaluation of Projects 1 and 5 of the CPP.*

In the second phase of the evaluation, field visits were made, starting on Tuesday, April 28 and ending on Sunday 03 May as follows:

Field visits were made:

Pinar del Río: State entities, areas of replication and production companies

Guantanamo: State entities and replication areas

Las Tunas in replication site Provincial Polygon

Camagüey: University of Camagüey and Environment Unit

Matanzas: replications sites and Environmental Units.

Meetings and interviews with the representatives of following organizations and entities took place:

- UNDP Cuba
- Ministry of Science, Technology and Environment (CITMA)
- Ministry of Agriculture (MINAG)
- Environment Agency (AME)
- Central Coordination Unit of the CPP (UCC)
- Implementation Office of P1
- Other key actors: Soil Institute (IS), Institute of Physical Planning (IPF), Institute of Tropical Geography, Quality Department of the MINAG, the Research Institute of Sugarcane Business of the Group Azcuba
- NGOs: National Association of Small Farmers (ANAP), Cuban Society of Soil Science (SCCS) and Cuban Association of Agricultural and Forestry Technicians.
- Other key stakeholders at the local level, government of the Municipality of Consolación del Sur, Province Pinar del Río, SR: Roberto CPA Amaran, Province Direction of Soil of Pinar del Río, CITMA delegation of Pinar del Río, Environment Unit of Pinar del Río, Provincial Direction for Physical Planning of Pinar del Río, Central Provincial Meteorological Pinar del Río, SD-CPA Jesus Suarez Soca, SR Finca Cascajales in CCS Lenin, SD Agricultural Enterprise Cubaquivir, Province Soil Direction of Guantanamo, SD-CCS Enrique Campos, SD Eliomar Noa, SR Provincial Polygon Tunas, Area of Good practices of sustainable land management in the provincial of Matanzas. *Program Assessment Projects No. 1 and No. 5 Country Partnership Program, CPP-OPI5. See list of interviewees.*

In these interviews, we opted for an open discussion methodology that allowed detection of the characteristics of individuals and groups interviewed. The reason for this choice was the preliminary reading. The evaluation team wanted to capture their unique visions of the lived reality, without predetermining its approach through a predetermined interview guide. In fact, both the encounter with the

main national actors involved in implementing the P1, as well as the interviews, revealed a variety of perspectives on the project and helped identify some initial findings and potential recommendations.

With this list of issues in mind (see section 1.3 below), we proceeded to an analytical reading of the most critical documents for evaluation, paying special attention to the preparatory documents (Pro-Doc), annual reviews of the implementation of the project (PIR), the mid-term evaluation, reports, and other selected for their relevance to some of the key issues identified documents. During this phase of the evaluation, more focalized interviews were made.

The interviewees were the responsible officials. In writing the draft report, three main elements were considered:

- The need to use the structure established in the terms of reference and categorize the items listed as highly satisfactory, satisfactory, marginally satisfactory or unsatisfactory;
- The existence of an acute analysis of the activities, results and difficulties of the project between January 2008 and September 2012 in the mid-term evaluation, which allows focusing now the last two and a half years and furthermore,
- Compare what happened with predictions and recommendations contained in this evaluation;

The evaluation shall be based on the application of five main criteria against achieving the objectives of the GEF: relevance; effectiveness; efficiency; results and sustainability. These criteria shall be defined to assess the headings specified in the objectives and scope of the Project No.1.

The criteria are understood as follows:

**Relevance:** Measures the degree to which a development initiative and its expected outputs and outcomes match with the policies and national and local priorities as well as with the needs of beneficiaries.

**Effectiveness:** Determines the extent to which the initiative has achieved the expected results and the extent to which progress has been made to achieve these outputs and outcomes.

**Efficiency:** Values whether inputs or resources (such as funds, expertise and time) have been converted into results economically.

**Impact:** Measures changes in human development and the welfare of the people who provide development initiatives, directly or indirectly, intentionally or unintentionally.

**Sustainability:** Values the degree to which the benefits of initiatives continue, or are likely to continue, once the external development assistance is completed. *Terms of Reference Final Assessment Project No.1, March 2015.*

### 2.3. Key Issues Addressed

Key elements identified for detailed analysis are:

- Project Design. What is the feasibility of the target and its relationship to the results, products and activities of the P1?
- Implementation. How are the ownership, the strengths and difficulties of implementation strategies?
- The remarkable advances of participation of different actors in building alliances. What elements are required to complete and consolidate this progress?
- The strong and successful role of the Cuban Government in the leadership of the process and the application of legal instruments (decrees, planning regulations and management plans, etc.). What are the commitments that the State must assume both at a national and municipal level (successful development model for Cuba?)
- The creation of systemic and institutional capacities in the territories of the provinces where the Project No.1 was implemented. What measures will allow the creation of systemic and institutional capacities in the territories of the provinces, which are mutually reinforcing?

- Impacts of Project No. 1 in economic and social indicators of the communities of the demonstration sites and areas of replication. With which actors and strategies in local communities will be feasible to achieve local development required to realize the management of the SLM?
  - Results achieved by strengthening key institutions such as the laboratories responsible for monitoring the biophysical soil condition in Guantanamo and Pinar del Rio and the Provincial Meteorological Center of Pinar del Rio in the implementation of the Early Warning System on weather events. What is the appropriate time horizon for achieving the goal of establishing entities in an efficient and sustainable way, which can be used as a model for other UNDP projects?
  - Partnerships developed by the Project No.1 in its role as coordinator with different institutions to disseminate and train new specialists. How should the different actors be integrated with the strengthening of the system of training and dissemination of specialists in the country?
  - Adaptive Management. What are the immediate and short-term steps to be taken to build a management system capable of consolidating the gains of the SLM and sustain the process of diagnosis, planning and implementation processes of sustainable land management in high-steps risks, with the instrument of adaptive management?
- 
- The complex questions regarding relevance, effectiveness, efficiency and sustainability is repeated in all the results, achievements and other central evaluation questions. With these parameters we want to measure the success of Project No. P1. *Annex: List of questions regarding topics: project design, project implementation and achievement of results and the sustainability of project actions.*

## **2.4. Structure of the evaluation report**

Following the structure outlined in the terms of reference, Chapter 2 of the report provides a brief description of the project and its context, summarizing the problems intended to address, the goal, the actors involved and expected outcomes anticipated. Chapter 3 examines and describes the aspects: design, project implementation, results and conclusions. Chapter 4 follows the structure indicated in the TOR in the presentation of recommendations regarding the key issues identified in section 1.3 of this document, based on the conclusions presented in chapter 3. Chapter 5 discusses global environmental benefits expected from the implementation of the P1 in Cuba. Finally, Chapter 6 abstracts the general lessons learned that the CPP, GEF and other agencies could apply to future projects.

## **3. The Project and its development context**

### **3.1. Beginning and duration of the Project**

In December 2004, the GEF Secretariat approved the preparatory phase for the proposed CPP. Since January 2005, UNDP and Cuban national authorities began with the design of the CPP and the Project No. P1. In November 2005, the GEF Council approved the CPP. In November 2008 began the Project No. P, which was planned for five years, until late 2013, but was extended for another year until December 2014. Since January 2013, the Environment Agency (AMA) is responsible for the management of CPP program and its projects, and also for the Project No.1.

### **3.2. Problems the Project aims to address**

Desertification affects directly the development in many countries. In Cuba it affects directly the potential development of many regions and the food security of thousands of people, which are forced to subsist and exploit the already impoverished land, mortgaging in their struggle for subsistence future

generations. Achieve sustainable development in these regions requires, as declared in the Cuban National Programme to combat desertification and drought in the Republic of Cuba: the implementation of integrated strategies that focus simultaneously on stopping the degradation processes, recovery environments, increasing land productivity, rehabilitation, conservation and sustainable use of land resources and water resources, all with the aim of improving the living conditions of the population, especially at the community level. *Final Project Report 1 Area of Intervention Guantanamo.*

Cuba has barriers at a national, provincial and local level, that oppose to sustainable land management, such as limited cross-sectorial integration and coordination between institutions, inadequate incorporation of the considerations of the Sustainable Land Management (SLM) to the programs of outreach and environmental education; among others. To solve the fundamental causes of land degradation processes, it is necessary to develop a strategy for solving the barriers encountered.

P1 aims: that Cuba has the capacity and conditions to manage land in a sustainable way that will contribute to maintain the sustainability and the ecosystem functions.

### **3.3. Project's Objective**

The P1 is a Project funded by GEF with \$ 3.5 million with a duration of six years. Cuba's government finances a counterpart of US \$ 25, 192.383. *See UNDP Project Document.*

The main focus of the Project No. P1 is the strengthening of national capacities for Sustainable Land Management and demonstration in the field of alternatives adapted to the extreme weather conditions.

The project involves the promotion of a model of integration and cooperation between the actors of the institutional and local levels and focuses:

- Towards strengthening of capacities at the national, provincial and local levels, which will support national planning and coordination needs and demonstration activities in this project and in other projects of the CPP.
- In promoting intersectional planning systems, monitoring and evaluation, drought monitoring, systems implementation of land use, and development of institutional, cognitive abilities and susceptibility, which will incorporate the considerations of SLM.
- The development of an appropriate extension process to promote SLM, which includes aspects of livelihoods, comprehensive consideration of the biophysical and socioeconomic aspects and participatory evaluation of traditional management practices of land.

The process becomes more sustainable through the training of coaches, including the national system of education and training, as well as focusing on the contents of environmental education programs to promote the incorporation of SLM message. *Country Program Partnership.*

**Figure No. 3: Intervention Area of P1 and of future P2, P3 and P4**



At terrain level, the project includes two areas of intervention: Guantánamo and Pinar del Río. In both, the project works with small-scale alternatives of SLM in correspondence with the characteristics of the sites. *Country Program Partnership.*

The Guantánamo area, was selected at the beginning of the CPP, as this territory is characterized by semi-arid conditions, it presents serious problems of soil degradation and has suitable characteristics to show alternatives and stop land degradation. *Country Program Partnership.*

The project established in this area, two demonstration sites to implement various actions and technologies in order to test and validate the best approaches to tackle the main forms of land degradation in this scenario and more appropriate land uses to prevent degradation processes of currently active lands. *Country Program Partnership.*

The area of Pinar del Río provides an opportunity to improve monitoring systems and information management in relation to climatic events, with which the processes of soil erosion in the area are closely related to. *Country Partnership Program.*

The project focuses its activities on the development and implementation of a monitoring system of extreme weather events, including an early warning system of drought and a monitoring system for long-term effects of climate change. A total of three demonstration sites constitute the stage to demonstrate alternatives of SLM. *Country Program Partnership.*

To operate the Project No.1, a Management Office located at the Soil Institute of the Ministry of Agriculture, which in partnership with other land user organizations at a national level, local working groups in Pinar del Río and Guantánamo, under the guidance of the Central Coordination Unit, are the main elements of the project coordination. *Country Program Partnership.*

## 2.4. Expected Results

The methodology to achieve impacts on the CPP program and its projects is the impact chain, based on a logical framework. The goal of P1 is that Cuba has the capacity and conditions to manage land in a sustainable way that helps maintain productivity and ecosystem functions. To reach that goal, the objective of P1 must be achieved: "Train and raise awareness for planning, decision making and control, necessary for the implementation of SLM in Cuba"

To build this goal, there are five results expected. The scope of the results is measured with defined indicators based on a baseline. The results are built with products and services. The use of the products and services of the target group or implementers generates the expected result. The construction of the products is based on resources provided by Cuban organizations and the GEF.

The main processes that cause land degradation are of anthropogenic nature. The following factors are the main causes:

- Machinery and inappropriate practices of crop mechanized farming
- Inadequate and inappropriate nutrient management
- Improper use of irrigation
- Excessive use of monoculture
- Poor management practices of soils and vegetation
- Agricultural burning
- Wildfires
- Inadequate selection of crops
- Mismanagement of cattle
- Conversion of natural forests to other uses
- Unsuitable conversion of agricultural land for other uses

### **Barriers to sustainable land management**

Analyses conducted during the preparation of the Country Program Partnership (CPP) identified several barriers that limit the possibilities of dealing with the threats expressed in this list. The analysis left six barriers to be solved and that oppose to sustainable land management.

Barrier 1: Limited cross-sectoral integration and limited coordination among institutions

Barrier 2: Inadequate incorporation of the considerations of SLM to the outreach and education programs about environment

Barrier 3: Limited development of operational mechanisms and incentives favorable to the implementation of SLM

Barrier 4: Inadequate systems for monitoring land degradation and the management of information related to the problem

Barrier 5: Insufficient knowledge and tools of planners to incorporate SLM considerations into plans, programs and policies

Barrier 6: Inadequate development of the regulatory framework for combating land degradation

The P1 project is designed as a strategy that contributes to pave these obstacles, fundamentally barriers 1, 2, 4, 5 and 6 and aims to deal with the problem with the following five expected outcomes:

**Result No. 1:** Planning systems, monitoring of regulatory framework, decision making and coordination of SLM work at local, provincial and national levels.

**Result No. 2:** The main actors at all levels reflect increased awareness on the issues of SLM in the programs, projects and activities.

**Result No. 3:** An integrated plan for the SLM is applied to a small-scale in intervention areas with severely degraded ecosystems and extreme weather conditions, with potential for replication across Cuba, developed and implemented at the field level.

**Result No. 4:** A system for monitoring extreme weather events and degradation of water resources and ground potential is applied for replication at a field level.

**Result No. 5:** Monitoring and evaluation

In the strategy designed, stakeholders expect at the end of the project the following measures:

- **Systems of planning, decision making and coordination** will be operating at national, provincial and local levels;
- **Cognitive abilities and awareness** will have been developed, implemented, tested and validated at the local level;
- **A comprehensive model of sustainable land management** in drylands severely degraded landscapes, for application in small-scale ecosystems, will be tested and implemented, with potential for replication in many other sites in Cuba, and
- **A model for climate monitoring and land degradation** will have been implemented and tested, with potential for replication in many other sites in Cuba.

With the achievement of the objective of P1 we aim: To train and create awareness for planning, decision making and necessary regulation, for the implementation of SLM in Cuba to overcome obstacles in the fight against land degradation.

## 4. Results and Conclusions

### 3.1. Design of the Project

Since January 2005 the UNDP Cuba and public actors started the design of CPP and of the P1 Project. The project design was based on the environmental problems found and described in the previous chapter. Those responsible designed the project in the context of Cuba's regulations, guidelines and policies. The most important legal instrument in Cuba, which constitutes the basis for the regulation for the management of natural resources, is the Environment Act 81 of 1997.

Another important part is the National Environmental Strategy and national plan of action, which are contained in the National Program to Combat Desertification and Drought from the year 2000. The analyzes were presented in the document of the National Strategy to Combat Desertification. *Country Program Partnership*.

#### 3.1.1 Feasibility of the project's objective

It is considered that the feasibility of the objective has been achieved, if the project has generated impact or is on the way to generate it. Therefore it is considered that the objective of P1 "Train and raise awareness for planning, decision making and control, necessary for the implementation of SLM in Cuba" is feasible. At the end of the project it is shown, that the objective of P1 has managed to institutionalize the concepts of SLM; its relationship to the results, products and activities was logical and feasible.

In the planned impact chain they have worked based on the needs to build the objective. A key success factor was that the authorities have worked in coordination with guidelines, economic and social policies of Cuba.

**RATING OF THE OBJECTIVE'S FEASIBILITY IN RELATION TO THE RESULTS, PRODUCTS AND ACTIVITIES OF THE P1**

**Effectiveness and efficiency: Highly Satisfactory**

*Note: See revision of the Logical Framework of P1*

#### 3.1.2 Articulation between results

The articulation between the five results is highly effective in the design of the project. Result one is based on efficiency and is linked to planning systems, monitoring of the regulatory framework, decision making and coordination of the SLM at three levels: national, provincial and local. This coordina-

tion has not worked in the past and now it has a synergy with the result two, which wants to build awareness in key players at all levels in the areas of SLM. Consciousness is a basis for the partnerships that have been built. Linked with result three, SLM puts the theory of field-level in practice and has managed to have a positive economic impact on the demonstration sites.

The satisfactory factor is that the application of the theory has generated impact through joint results. With result four, the SLM has received an instrument for monitoring extreme weather events and the fight against the degradation of soil and water resources. Also this result has a good coordination between the other results and has supported more synergies between these outcomes.

Result five, monitoring and evaluation, ensures that these synergies are observed, systematized and documented. The monitoring process is needed to use the replication of these results at a field-, provincial and national level. The evaluator notes, that the articulation between the results was successfully designed in the P1 and is part of the success of the project.

#### **RATING OF THE ARTICULATION BETWEEN THE RESULTS OF PROJECT P1**

**Effectiveness and efficiency: Highly Satisfactory**

*Note: See revision of the Logical Framework of P1*

### **3.1.3 The articulation of indicators**

The indicators of the five results in the logical framework are formulated to define the scope of the objectives after five years (with the extension of term to six years) of P1. A critic of the indicator's formulation for the design of the P1 and of the logical framework is that they are not easy to understand and maybe it's not easy for a participatory project, but in practice the results have worked well with the indicators, perhaps because of the strong involvement of the P1 Team at a national, provincial and local level.

The indicators in relation to the objectives are sufficient for measuring progress and compliance objectives. The sources of verification of indicators are accurate and clear. The different results have a sufficient number of indicators to measure progress and complexity.

A recommendation for the measurement of the progress, will be not to work only in three to five years steps, but rather to set milestones to measure the progress each year. This is mainly important for the indicators of result three. These indicators are more at a field level and want to measure the socio-economic impact of SLM techniques that have been achieved at the farm level. Measuring these advances need a more detailed distribution, to ensure the participation of producers.

#### **RATING OF THE ARTICULATION OF THE SELECTED INDICATORS IN P1 AS A PART OF THE LOGICAL FRAMEWORK**

**Effectiveness and efficiency: Satisfactory**

*Note: See revision of the Logical Framework of P1*

### **3.1.4 The quality of the risk matrix in the logical framework**

The quality of the risk matrix in the P1 logical framework is not adequately developed and the mid-term assessors have recommended additional risks should be integrated in the format of the logical framework. At the final assessment, it has become to observe that the positive assumptions prevail over the risks, which should be considered for further projects.. It should be noted that in the P1, results, products and targets were highly satisfactory, partially because of the Cuban situation, which is very positive for the implementation of projects at this level, if the project follows with the political guideline. *See Guidelines for economic and social policy of the party and of the revolution of 18/04/11.*

Likewise, the project team has maintained a constant and effective monitoring of the risks and in each case has taken appropriate measures to minimize the impact, although this did not mean, that it would result a modification of the logical framework, all of which can be seen in the records of the Steering Committee meetings.

However a recommendation of the evaluator for future projects is to integrate risks in the logical framework as mid-term assessors have recommended.

The risks are formulated at the level of problems as the project has overtaken and as discussed in chapter three, but the risks are also on the details and the level of performance, especially if there's work at the level of individual producers, which can be affected by a high number of potential risks. Project managers should anticipate these risks in the project design and recommend a solution if these risks are real.

#### RATING OF THE QUALITY OF THE RISK MATRIX IN THE LOGICAL FRAMEWORK OF P1

Effectiveness: marginally satisfactory

*Note: See revision of the Logical Framework of P1*

### 3.1.5 Project Stakeholders

Stakeholder groups are divided into stakeholders that are beneficiaries of the project at a local level and depend differently on natural resources; and public actors constituted by different institutions related to the subject; among them are the following groups. *Note: See Actors of P1, pg. 55*

#### Local Actors

- ✓ **Individual farmers:** They are present in all areas of intervention. They are highly vulnerable to desertification, drought and economic limitations.
- ✓ **Members of cooperatives:** Also present in all areas of intervention. Generally they depend only on their own resources, but are protected by the state benefits such as credit, insurance, social security, and (in the case of workers of state farms) wages. Their vulnerability is similar to the one of individual farmers.
- ✓ **Peasant leaders:** They are exposed to the vulnerability of ecosystems, but are able to propose, implement and multiply their own initiatives and those they receive.
- ✓ **Community leaders:** They are generally heavily exposed to conditions of ecosystems in terms of access, climate and degradation of natural resources.
- ✓ **Extension Agents:** They are vulnerable to ecosystem conditions in regard to access roads, climate and the degradation of natural resources.

The project hoped to make a partnership with all relevant actors in Cuba for sustainable land management, including relevant regulatory planning systems for decision-making and coordination at the local, provincial and national levels. The management structure of the project consisted in a central coordination unit of the CPP. We planned to integrate the following public institutions:

Central Coordination Unit composed of AMA CPP, IGT, Soil Institute, INRH, IAGRIC.

Central Coordination Unit of Project No.1, the integration of six national coordinators, 3 specialists and coordinators of the areas of intervention: Soil Institute, Institute of Physical Planning, Environment Directorate CITMA Environment Agency, Directorate of Quality of the Ministry of Agriculture, Center Local Development Institute of Tropical Geography and the Provincial Meteorological Center of Pinar del Rio and the Provincial Soil Guantanamo, was planned.

It was planned to integrate following stakeholders into the alliance:

Ministry of Science, Technology and Environment (CITMA)

- Environment Agency (AMA)
- Department of International Cooperation (DCI)
- Institute of Tropical Geography (IGT)
- CITMA delegation Pinar del Río
- CITMA delegation Guantanamo

Ministry of Agriculture (MINAG)

- Forestry Department
- Soil Institute (IS)
- Institute of Agricultural Engineering (IAgric)
- Soil Management Guantanamo
- Soil Address Pinar del Río

Ministry of Higher Education

- Department of Science and Technology of MES

National Hydraulic Resources Institute

- Directorate of Science and Technology

Ministry of Education

Institute of Physical Planning (IPF)

Ministry for Foreign Investment and Economic Collaboration (MINCEX)

- Address International Economic Organizations
- Executing company Donations  
NGO
- Cuban Society of Soil Science (SCCS)
- National Association of Small Farmers (ANAP)

Other relevant stakeholders locally (delegations, governments, civil society)

ANAP Municipal Los Palacios in Pinar del Río

The participation of stakeholders in the project achieved the integration of basic units at different levels, which is very satisfying. The aim of the project "Capacity building for planning, decision making, regulatory systems and awareness for sustainable land management in severely degraded ecosystems" was only possible with the high participation of stakeholders at different levels, this participation will

facilitate the flow of comprehensive information from the base level to all levels of decision making in the topic SLM.

This stakeholder participation was also the basis for building alliances and probably is also the basis for future sustainability. In the interviews, several stakeholders have mentioned that an important achievement was to build trust between them, because with the trust they can work on the same topic more effectively and efficiently.

## RATING OF THE SELECTION AND PARTICIPATION OF THE STAKEHOLDERS

Effectiveness and efficiency: **Highly Satisfactory**

*Note: See revision of the Logical Framework of P1*

### 3.2. Implementation of the project

The P1 was the first CPP project that has been implemented. The project has been able to identify local actors, to replicate activities that can contribute to the awareness and adoption of SLM in several areas. One of them was to include SLM in the 2011-2015 National Environmental Strategy and in the National Environmental Strategy of Environmental Education 2010-2015 as a priority topic and in teacher training centers. This process allowed the integration of the cognitive abilities and the sensitization to enter a successful SLM process, with the educational system. This is an example of implementing the P1, which has worked at various levels of training.

Projects 2, 3 and 4, that have not yet started, are subsidizers of these experiences of P1. As shown in Figure No. 2, there is a delay in the implementation of other projects because the P1 is closed after six years and the other projects have not started as planned in the CPP.

The P5, which is accompanying the P1, guarantees monitoring for the P1 and all projects. The P1 is a project that has had a high relevance in the context of the CPP. Its strength for acceptance on behalf of local stakeholders is the work on an economically relevant issue for producers. Land degradation has a negative effect on the socio-economic situation of producers and environmental protection. Land degradation is a result of bad agricultural practices and local stakeholders understand this causality.

The strength of the P1 is its intelligent design, the integration of stakeholders at all levels and the investment of the GEF funds as a starter motor in this problem. The implementation was managed with a strategy for solving environmental damage caused by bad practices.

The farm incomes have demonstrated that the project has very successfully improved income and production. The difficulty for the future may be that the earnings may not increase with the usual fast as in the past. For the evaluator, a smaller increase in the future can be a normal effect, because income risings in agricultural production are usually slow.

Note: The implementation of the P1 has had delays in their early years, therefore the extension was allowed without new GEF investment funds. This delay is mainly due to insufficient coordination between authorities, to import materials from abroad and has made necessary the time extension to guarantee the expected results. This situation is one of the reasons that influenced that the projects P2, P3 and P4, did not initiated as planned in the PRODOC.

**Figure No. 4: Relation between P1 with the other projects**

Relación P1 con los otros proyectos del Programa										
1	2	3	4	5	6	7	8	9	10	
Proyecto 1: (Años 1-5) Fortalecimiento de capacidades para la planificación, toma de decisiones.....										
						Proyecto 2: Fortalecimiento de capacidades .. Manejo Sostenible de Recursos Hídricos				
						Proyecto 3: Fortalecimiento de capacidades para Mecanismos Financieros Sostenibles // Manejo Sostenible de Tierras				
						Proyecto 4: Validación de los modelos de MST a escala de paisaje				
Proyecto 5: Coordinación, monitoreo y evaluación del CPP de Cuba.										

## PROJECT IMPLEMENTATION RATING

Effectiveness and efficiency: Satisfactory

*Note: See revision of the Logical Framework of P1*

### 3.2.1 Role of implementing and executing agencies

In the project P1, two United Nations agencies participated: PNUD as an implementing agency of the GEF and FAO as a technical cooperation agency. The Environment Agency (AMA) is the executing agency of the Cuban Government since 2013.

The P1 is one of five projects developed under the Country Program Partnership (CPP) "Support for the implementation of the national action program to combat desertification and drought in Cuba".

The relationship between UNDP and AMA is regulated by the planning and execution of the Annual Operation Plan (AOP). The country office will review and approve the AOP before sending it to the regional coordination office for review by the relevant regional technical advisor (RTA) and approval of the Annual Budget (AWP). For this process a very well working tool has been developed: the tool for preparation of the Annual Operating Plan of the UNDP-GEF projects. The AMA is also responsible of incorporating in the economic plan the acquisitions of the project planned in the AOP, for approval of the higher authorities of CITMA, MEP, MINCEX.

This tool also allows a comparison with other management tools such as the tracking of project results with the PIR, the risk management strategy, the recommendations of the PIR and the mid-term evaluation.

The CPP participation and in particular the P1 has been very favorable, me as evaluator could see a very good coordination between actors from different institutions, among which is the Center of Information, the Ministry of Science, Technology and Environment CITMA, the Ministry of Agriculture, Ministry of Higher Education and National, Institute of Hydraulic Resources. Some institutions under these ministries, such as the Soil Institute, the Institute of Phys-

ical Planning, the Institute of Tropical Geography and others have been responsible for the development and implementation of this project efficiently.

AMA is responsible for the management of the CPP program and all projects must meet the objectives and projected results, using effective and efficient the resources allocated with the documented needed and assuring an effective coordination for the implementation of the national project for combating desertification and drought to reduce its effects. UNDP is responsible for monitoring the project and for the allocation of funds, based on the planning of the AOP.

The obstacles encountered in implementing the budget of P1 were outside the scope of the Executing Agency. The importation of goods or materials from abroad should be planned well in advance to prevent delays in its implementation. Imports are regulated by Cuban policy guidelines. Therefore, in the implementation of projects, the planning and the importations request should be made with enough time and in the first phase.

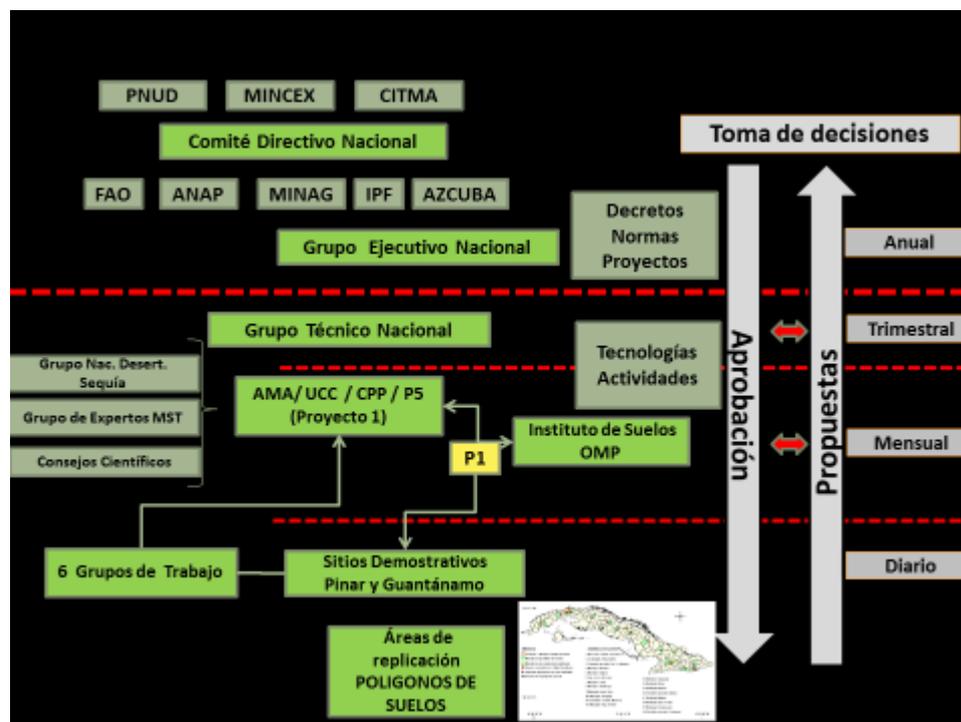
**RATING THE ROLE OF THE IMPLEMENTATION AND ENFORCEMENT AGENCY OF THE PROJECT**

**Effectiveness and efficiency: highly satisfactory**

*Note: See revision of the Logical Framework of P1*

**3.2.2 Structure of project management**

**Figure No. 5: Governance Structure of the P1**

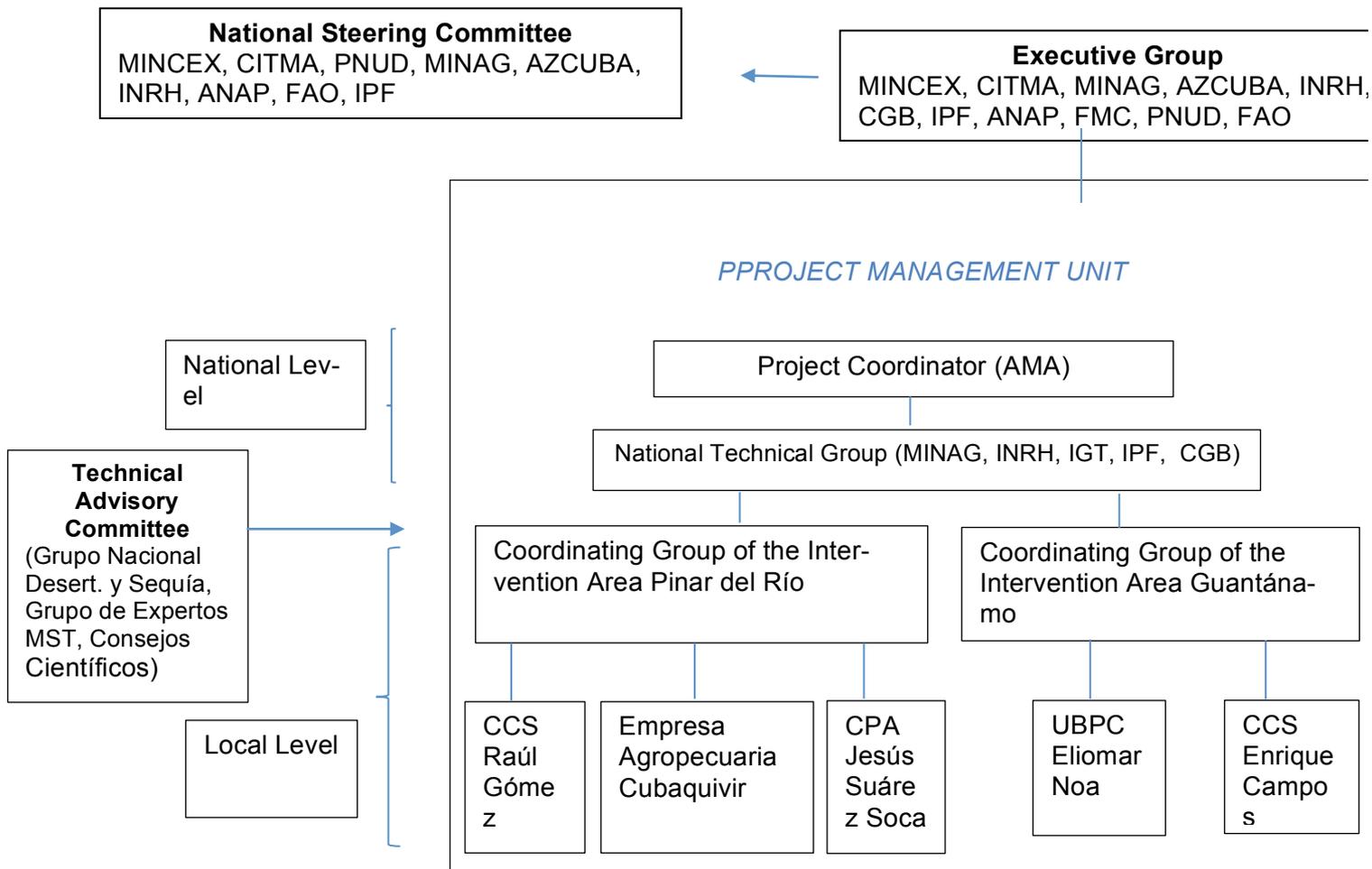


The structure of the project management is based on an alliance at the national, regional and local levels of different stakeholders on the topic of SLM. Although the structure of the project management seems very vertical, there is a good coordination between the different levels of stakeholders: decision-making is at the level of national steering committees, where UNDP, FAO, Ministries; and the Executive Group who have the National Steering Committee meetings at least once a year, are involved. (See Figure No. 3).

On the third level, there is the National Technical Team, which has quarterly meetings. The Committee of the projects, which is on a lower level, holds monthly meetings and the working groups; the demonstration sites and the replication areas have daily meetings.

The proposals come from the bottom up and after the approval, down from top to bottom. As a result of the interviews, field observations and studies of the literature, the consultant sees the relevant structure, in the sense that it is consistent with national laws and with the need of the target group and effectiveness and efficiency in the sense of creating results and the use of funds.

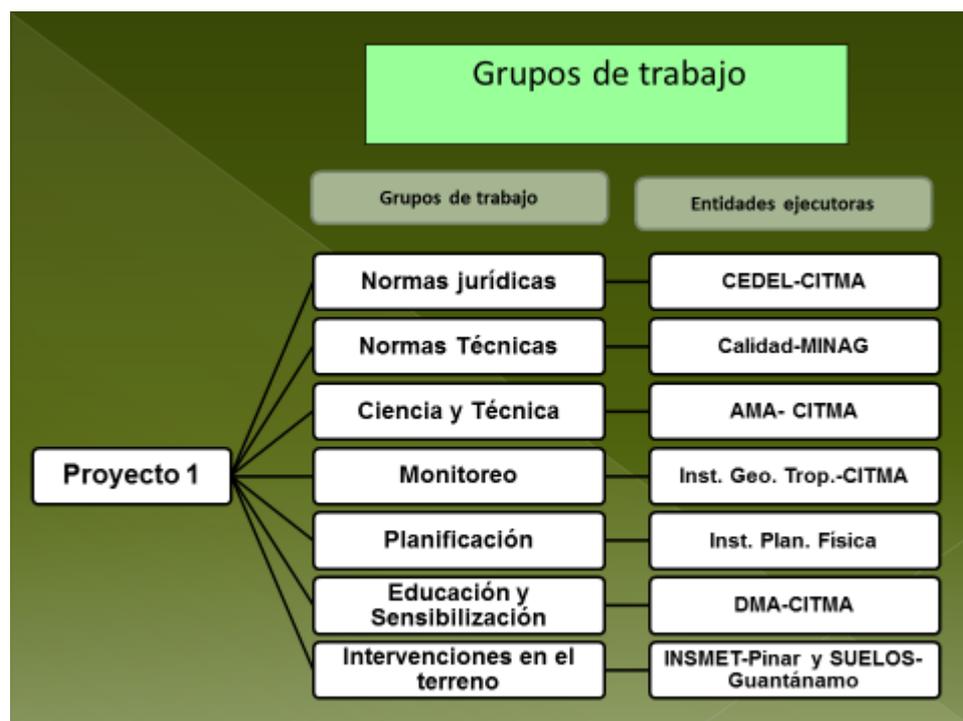
**Figure No. 6: Organizational management Unit Chart of P1**



Note: The government counterparts as stakeholders are personal resources within the structures of the ministries and institutions, paid with Cuban national funds that produce products and services. These products and services used by beneficiaries produce the expected results of P1. In the Figure No. 4 only the five demonstration sites are mentioned and not the replication areas.

The working groups are an important element in the structure of the P1. For the creation of the result one, seven working groups, which are the responsibility of different ministries and institutions to advance specific issues, have been formed. See Figure No. 5: Working Groups.

Figure No. 7: Working Groups



### RATING OF THE STRUCTURE OF PROJECT MANAGEMENT

Effectiveness and efficiency: highly satisfactory

### 3.2.3 Risk Management

In the past six years the team has identified different problems or circumstances that should have affected project implementation and achievement of impacts. According to information from the team, the following factors have caused problems or created circumstances that caused a delay of P1, especially in its early years. In the past two years it has recovered the time to finish as planned:

- Changes in the proportion of land ownership between the state and private sector. *See Official Gazette of the Republic of Cuba No. 45 of 22/10/12. Decree Law No. 300.*
- Enactment and implementation of Decree Law 259 on unused land, and subsequent Decree Law 300. *See Official Gazette of the Republic of Cuba No. 45 of 10/22/12. Decree Law No. 300.* The P1 staff has provided information in interviews, where they identify that the update of Decree Law 300 project was a challenge, especially in the adaptation of project funds.
- Institutional changes in key ministries linked to the CPP (Ministry of Agriculture, Ministry of Sugar, National Institute of Water Resources, Ministry of Science, Technology and Environment). Institutional reorganization of the key players in the project as Irrigation and Drainage Institute, IPF, CIGEA, MINBAS and the Cuban System of Sciences was a strong challenge for the project, especially the integration of new players to ensure that they fully understand the objectives project and to participate with awareness for SLM. *See Guidelines for economic and social policy of the Party of the Revolution of 18/10/11.*
- Updating the economic and social model. Starting with the process of implementing economic and social guidelines of the VI Party Congress, 2011. *See guidelines of economic and social policy of the Party of the Revolution of 18/10/11.*
- Ratification of priorities with emphasis on food security and sustainable food production and local development. *See Guidelines for economic and social policy of the Party of the Revolution of 18/10/11.* Prioritize in short-term, the import substitution of those foods that can be produced efficiently in the country. The resources to promote it should focus on where there exist better conditions for its more effective employment, in order to increase yields and pro-

duction efficiency; also the implementation of the results of science and technology must be enhanced.

- Settings regulations on driving and implementation of cooperation projects and their inclusion in the plan of the economy. *See Guidelines for economic and social policy of the Party of the Revolution of 18/10/11.*
- Damages by drought and cyclones in areas of intervention. The high probability of drought, cyclones and hurricanes has an impact in soil degradation, but the early warning system is an instrument to reduce these effects.
- Global economic crisis and rising prices of key inputs and equipment for projects. The instability of the dollar relative to other currencies, leads to an increase of supply prices to be imported from the international market for P1. This uncertainty of the value of the currency causes problems in the scope of results that depend on imported materials. At the same time, the global economic crisis has caused, that donors have trouble keeping their donations pre-views.

**Problems are also opportunities.** Different problems that the evaluator has described have not had a negative long-term impact on the success of P1. Through the adaptive management and risk management tool, the negative effects of the problems and circumstances as detailed above, were solved. Major changes in project implementation through the adaptive management have allowed the implementation of new instruments, especially in the demonstration areas. Important in this regard, is that budget flexibility has allowed adaptation to new national priorities, for example, the support provided to the activity of giving land of Decree 259 and 300, as well as activities made in the polygons of soils declared as replication areas of P1. *Official Gazette of the Republic of Cuba No. 45 of 10/22/12, Decree Law No. 300*

This also reflects the ability to replicate the adaptive principal of the Project, to new national and international contexts. *Guidelines of the Economic and Social Policy of the Party and the Revolution of 18/04/11.*

Risk management should ensure the project's success, especially in situations that are less predictable, as well as in processes of change and adaptations of national policy, legislation, regulations, etc., to new situations. In the logical framework of P1 there is a definition of risk for all levels, from the objectives level to the target level. In this context they have a risk monitoring system and its consequences on the outcome. That risk management is linked with the system of monitoring and evaluation at all levels and the sustainability monitoring system. Risks need in the logical framework a clear development and regular updating.

For the future, the evaluator recommends as well as the mid-term assessors, that risks should be part of periodic reports. The analysis of the risks should be the feedback of the adaptive management strategy. Project responsible have the possibility to act to achieve the result, if the entry of a risk in the monitoring system is noted and they can find alternatives to prevent the risk. Adaptive management system is a tool to find solutions. Risk management in the P1 is highly satisfactory, the weakness is the quality of the risk matrix of the logical framework in P1. It will be important, as an experience, for future projects P2, P3 and P4, to review the risky assumptions well as lessons learned from P1 and have a real definition of potential risks for the future.

Criteria	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, Efficiency and results</b>	Satisfactory
<b>Sustainability</b>	Likely

*Note: See revision of the Logical Framework of P1*

### 3.2.4 Adaptive Management

Adaptive management is an informal instrument and a methodology developed by the project management and it reacts on a flexibly way to the challenges that stand in the way of the project. Adaptive management is important in a situation of risk, not calculable for the P1 project, especially with the context changes that have occurred to date for the implementing organization and also for the base units.

These changes and risks especially need the adaptive management; often affected by droughts and cyclones in areas of intervention, adjustments of regulations on conduction and implementation of cooperation projects and their inclusion in the plan of restructuring the economy and government. The flexibility in budget management allows for example the adaptation to new national priorities, for example, the support given to the effectiveness of the delivery of land by Decree Law 259 and 300; and activities made in soil polygons, declared as replication areas of P1. This topic likewise reflects the ability to apply adaptive management of the project at national and international level.

The challenge regarding the adaptive management is that this instrument is recognized by the Country Office in preparing the AOP and that can be used in a coherent and flexible way at the same time. This way the adaptive management can be part of the risk management strategy of UNDP and can be a formal instrument for implementing the AOP, as the PIR and the mid-term evaluation. Work in that formalization is a recommendation of the evaluator for the P2, P3 and P4 and the CPP Program projects.

Criteria	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, Efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

*Note: See revision of the Logical Framework of P1*

### 3.2.5 Monitoring and Evaluation

The ProDoc lists a number of tools and instruments to monitor the project:

- Daily monitoring of the progress of coordination
- Periodic monitoring
- Annual monitoring
- Monitoring finances
- PIR
- Progress Reports
- Technical reports
- Project Publications
- Midterm evaluation
- Final evaluation
- Financial Audit

The monitoring instruments referred to in the ProDoc were prepared systematically in practice. The evaluation team had access to most of the documents listed above, where the progress of the project activities was widely reported.

In addition to the regular monitoring of the activities of the AOP, reports and annual reports referred to in ProDoc, the supervision of the project included the monitoring of risks in the Atlas system of the

UNDP. All this provided elements for adaptive management of the project. Overall, the monitoring of activities has been satisfactory.

Plans and budgets were prepared in time and form; information requirements, methods of monitoring and controlling of the UNDP-GEF were observed diligently, especially with regard to administrative and financial information of the activities planned. A mid-term evaluation was made in 2012, which detected numerous and valuable results. The recommendations of the evaluation were taken by UNDP and influenced the orientation of the activities of P1.

A very effective instrument for the monitoring of the P1 is the PIR, which UNDP has done every year. The centralization of the monitoring process of P5 is very efficient and effective and it is recommended to repeat it in other programs of this project.

In the mid-term evaluation of 2012, important recommendations for P1 were made. The Project has made these important changes. Among the recommendations are:

- Implement the monitoring of some complementary biophysical indicators
- Promptly implement more effective irrigation systems in demonstration sites
- Acquiring machinery to develop zero tillage tests at a small scale
- Use the experience gained throughout this period of operation of P1
- Improve communication of project outcomes at various levels of evaluation such as PIRs
- Redefine inconveniences of P1 and P5 to clarify their specific roles within the CPP

P1 project team and the CPP program has tried to make these recommendations and those responsible have adopted them until the last year. The adoption of these recommendations necessary for successful P1, are satisfactory.

#### **RATING OF MONITORING AND EVALUATION:**

**Effectiveness and efficiency: Satisfactory**

*Note: See revision of the Logical Framework of P1*

### **3.2.6 Financial and Co-Financing Planning**

UNDP supervises the financial planning efficiently. Within the AOP and the CDR there is a transparent budget flow of P1. The financial resources allocated for the project by the GEF amounted to US \$ 3.5 million for five years. The co-financing planned by the Government of Cuba is US \$ 25192.383 and NGOs (ANAP Y ACPA) US \$ 629.148. The total co-financing was planned in the ProDoc with an amount of \$ 25, 821.531. The total GEF financing and the co-financing of the project in five years is US \$ 29, 321.531. *See UNDP Project Document.*

Below the GEF and non-GEF budget (see Figure No. 6 and No. 7) of the Project by objective and source of financing, raised in the detailed ProDoc approved.

Note: In the following AOP, the P1 and UNDP have worked with six outcomes, although the logical framework of the project has evaluated just 5 (The evaluator has assessed only from 1 to 5). The result has six administrative expenses.

**Figure No. 8: Financing planned by result**

<b>Objective</b>	<b>GEF</b>
Result 1	1627382.00
Result 2	399602.00
Result 3	1108699.00
Result 4	248317.00
Result 5	59000.00
Result 6	57000.00
<b>Total</b>	<b>3500000.00</b>

The financing planned by result of GEF funds, has high investments in the result 1 and 3, especially result 3 depends on imported materials.

**Figure No. 9: Financing executed by result of the Cuban co-financing in USD**

<b>Execution by results</b>	
<b>R1</b>	7.673.887,49
<b>R2</b>	5.091.240,25
<b>R3</b>	30.486.759,31
<b>R4</b>	2.742.742,43
<b>R5</b>	192.730,38
<b>R6</b>	80.580,00
<b>Total</b>	<b>46.267.939,86</b>

The co-financing executed by the Cuban government is invested mainly in result 1 and 3, in a similar percentage as shown in figure No.7.

**Figure No. 10: Budget of Cuban co-financing in USD, execution of the budget and the difference of the budget**

Year	Co-financing planned according to the Pro-doc	Execution	% Execution	% Cumulative Execution**
2009	14.418.499,6	5.320.078,7	36,9	20,6
2010	5.078.568,7	5.972.953,0	117,6	43,7
2011	6.374.568,0	8.957.789,2	140,5	78,4
2012	8.428.145,2	8.886.322,2	105,4	112,8
2013	7.596.218,1	8.240.581,0	108,5	144,8
2014	3.159.876,8	8.890.215,6	281,3	179,2
<b>Total</b>	<b>25.821.531,00</b>	<b>46.267.939,7</b>		

The co-financing on behalf of Cuba is much higher than expected because of the delay that the project has had in the first years. In 2009, the co-financing was less than expected.

**Figure No. 11: Budget and execution of GEF funds (US \$) 2008-2015**

Year	Planned Budget Pro-Doc	Execution	Difference planning/execution	Cumulative execution	Sub Cumulative execution
2008	0	13499	13499	13499	0
2009	1426546	309269	-1103783	322763	-1103783
2010	1046649	367147	-679502	689910	-1783285
2011	624613	900988	276375	1590898	-1506910
2012	280524	345008	64484	1935906	-1442426
2013	121668	818236	696568	2754142	-745858
2014	0	614298	614298	3368440	-131560
2015	0	131560	131560	3500000	0
<b>Total</b>	<b>3500000</b>	<b>3500000</b>	<b>0</b>	<b>3500000</b>	<b>0</b>

The implementation of GEF funds was not as planned in the ProDoc until 2012. The implementation of GEF funds has had an under-execution of over 40%. This underspending was caused by the delay of import of goods from abroad. Underspending of funds caused a situation that made UNDP increase a year of execution without increasing GEF funds.

**Figure No. 12: Budget execution by result, 2008 -2010, GEF – PNUD Funds**

	2008	2009	2010	2011	2012	2013	2014	Sub- Total
<b>Result 1</b>	6083,64	2390 13,34	313255,28	458934,55	101337,22	161278,89	253714,96	1533626,88
<b>Result 2</b>	0	50446,23	41960,13	67904,69	23810,70	132847,94	80058,19	397027,88
<b>Result 3</b>	0	7500	7190,51	346838,26	142952,95	458493,23	199134,21	1162109,16
<b>Result 4</b>	0	9728,67	3937,26	12172,24	6073,48	6312596	75816,98	170854,59
<b>Result 5</b>	7416	0	0	0	6177,04	0	0	13593,04
<b>Result 6</b>	0	2576,28	804,55	15130	10527,44	2490,69		37103,56
<b>Total</b>	<b>13,499,64</b>	<b>309264,52</b>	<b>367147,73</b>	<b>900988,74</b>	<b>290878,83</b>	<b>818236,71</b>	<b>614298,94</b>	<b>3314315,11</b>

Budget execution by result of GEF funds, disaggregated by results, still cannot be defined in 2014. You can see in the figure above that there is a strong underspending improved from year 2012 and with a small remainder for the year 2015.

**Figure No. 13: Budget Statistics by category (US\$) - Execution 2009-2014**

Category	2009	2010	2011	2012	2013	2014	Total	Calcula-tion
<b>International consultant</b>	21500	14000	19750	70754	115000	44000	<b>285004</b>	<b>142502</b>
<b>Local consultant</b>	0	0	0	0	0	0	<b>0</b>	<b>0</b>
<b>Contractual Services individual</b>	0	0	0	0	0	0	<b>0</b>	<b>0</b>
<b>Travel</b>	67880	25000	109924	167438	154000	26000	<b>550242</b>	<b>275121</b>
<b>Contractual services Company</b>	90300	120600	37245	99711	228000	86000	<b>456656</b>	<b>228328</b>
<b>Equipment and furniture</b>	234000	400600	345818	13861	41000	78000	<b>1113279</b>	<b>5566395</b>
<b>Material and goods</b>	227557	180200	326107	51266	68000	233000	<b>1086130</b>	<b>543065</b>
<b>Communication and audiovisual equipment</b>	110089	29000	31000	133579	329000	32000	<b>664668</b>	<b>3323334</b>
<b>Supplies</b>	36351	24000	32528	67182	42000	4000	<b>206062</b>	<b>103031</b>
<b>Information technology equipment</b>	109613	51000	54382	72166	175000	92000	<b>554161</b>	<b>277080</b>
<b>Rental and maintenance of premises</b>	25000	21000	25000	44280	83000	7000	<b>205280</b>	<b>102640</b>
<b>Rental and maintenance of information technology equipment</b>	21350	800	2600	64665	77000	6000	<b>172415</b>	<b>86207</b>
<b>Rental and maintenance of other equipment</b>	53011	22000	27701	39177	29000	48000	<b>218889</b>	<b>109444</b>
<b>Professional Services</b>	23000	100	500	66510	73000	2000	<b>165110</b>	<b>82555</b>
<b>Audio visual &amp;</b>	100100	120800	102781	83308	92000	98000	<b>596989</b>	<b>298494</b>

<b>printing production cost</b>								
<b>Miscellaneous Expenses</b>	32900	15000	44137	50426	37000	45000	<b>359463</b>	<b>179731</b>
<b>Training</b>	0	0	0	0	0	0	<b>0</b>	<b>0</b>
<b>Total</b>	<b>1152651</b>	<b>1024100</b>	<b>1159477</b>	<b>1024328</b>	<b>1543000</b>	<b>800000</b>	<b>6634346</b>	
<b>Total Prodoc</b>	<b>1426546</b>	<b>1046649</b>	<b>624613</b>	<b>280524</b>	<b>121668</b>		<b>3500000</b>	
<b>Difference</b>	<b>-273898</b>	<b>-22549</b>	<b>534864</b>	<b>743804</b>	<b>1421552</b>	<b>800000</b>		

The statistical budget by category in the GEF funds has a problem in the interpretation because of the insufficient flow of resources. The amounts have accumulated almost twice the amount provided of US \$ 3.5 million. The underspending of funds is noted as in previous formats. Categories where the investment is relatively high are materials, equipment, audiovisual communication and travel. You can see in this format that GEF funds are used additionally to national funds, with the difference that the GEF funds must be paid with currencies. The success of the project P1 according to the evaluator is due to the interest of government authorities, in linking national funds for the SLM with relatively small GEF funds in currencies that have the dual role of startup funds and currency funds to buy goods that cannot be obtained in local currency. That combination of funds causes a high impact and a highly satisfactory efficiency and financing.

#### **RATING OF FINANCIAL AND CO-FINANCIAL PLANNING**

**Effectiveness and efficiency: Satisfactory**

Note: The rating of financial planning is not highly satisfactory for the underspending of funds in the early years, although the combination - financial GEF and co-financing - without underspending would be highly satisfactory.

### **3.2.7 Monitoring and Evaluation of Sustainability**

P1 initiatives cannot produce a short-term impact, therefore it is necessary to develop a system of monitoring and impact assessment post P1 and integrate it in the P5. This monitoring and evaluation system will assess the socio-economic sustainability but also environmental impacts in the areas of intervention and replication.

The monitoring system has been built in the last season of P1 and will continue with P2, P3 and P4. Socioeconomic impacts in P1 activities are the basis for the sustainability of SLM at field level. Only if the actors who are economically vulnerable see success in these SLM innovations and practice the same activities in the long-term, the P1 can be sustainable. Therefore the new system of monitoring and evaluation is the basis for future sustainability of the CPP and the replication of successful actions of P1.

Criteria	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, Efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

*Note: See revision of the Logical Framework of P1*

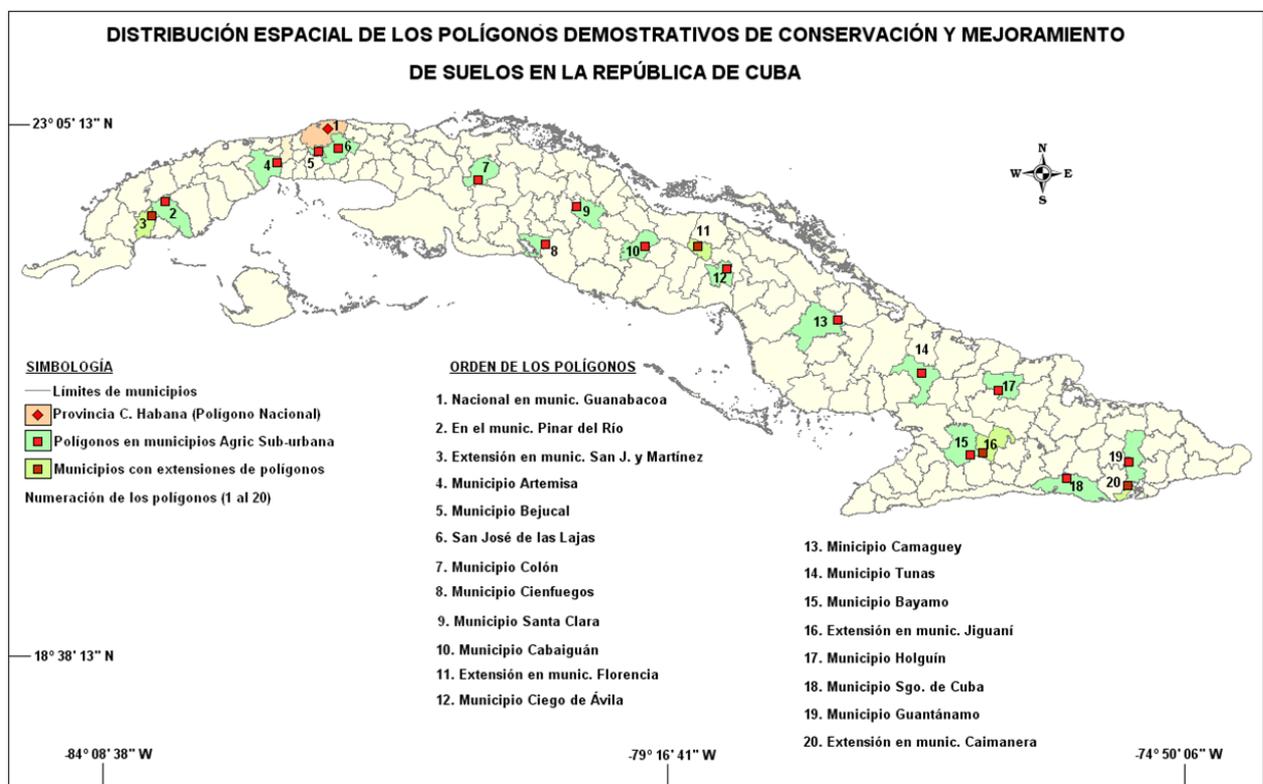
### 3.2.8 Replicability of the actions of P1

A central aim of the CPP is to replicate successful actions in other projects. UNDP is also interested in replicating successful activities in other projects with UNDP-GEF funds.

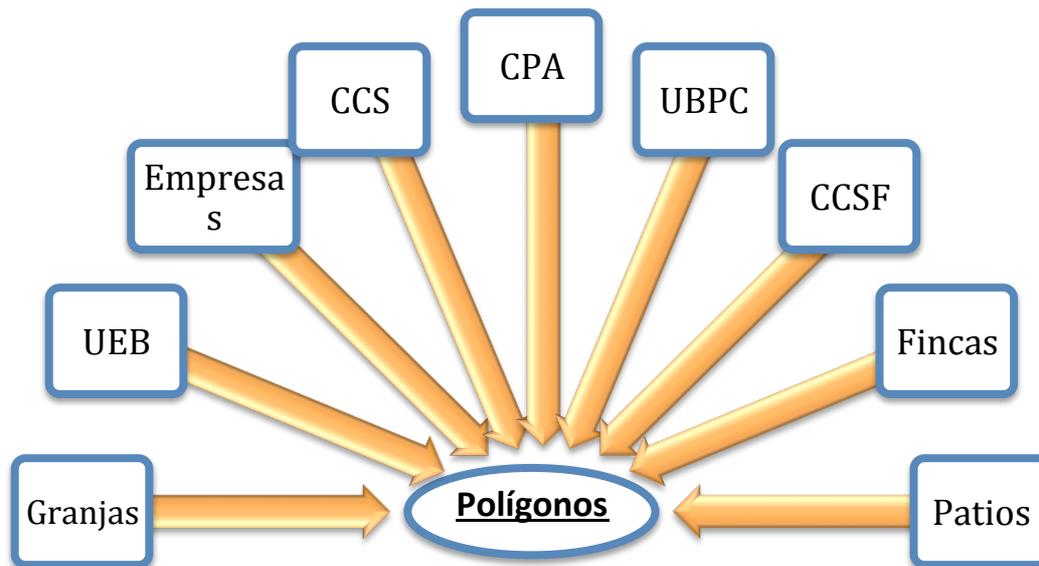
There are different forms of replication of successful actions of P1:

At the territorial level, the project comprises two areas of intervention: Guantánamo and Pinar del Río. In both, the project works with at a small-scale with different alternatives of SLM in correspondence with the particular characteristics of the sites. The work at a territorial level was very successful. The project established in these areas five demonstration sites to implement various actions and technologies in order to test and validate the best approaches to tackle the main forms of land degradation in this scenario and its proper use to prevent the worsening of the degradation of land currently active. The replica was made in the different polygons at a provincial level with a total of 34 polygons. The second phase will be in municipal polygons.

**Figure No. 14: Replication sites of P1**



**Figure No. 15 Replication in Polygons and Production Units**



The replication in the polygons can be seen in the range of all production units: farms, courtyards and private farms, cooperatives and state enterprises. The SLM is a viable alternative in different social forms of production units. The replication of successful actions of P1 will be considered in future projects of CPP. These are the following:

Project 2: Strengthening of capacities for the coordination of information and monitoring systems / Sustainable Management in areas with problems of water resource management

Project 3: Strengthening of capacities for Sustainable Financing Mechanisms // Sustainable Land Management in dry forest ecosystems and pastoral areas.

Project 4: Validation of the SLM model at the landscape scale.

The content of the replication will be:

- Provide training and create awareness for planning systems, decision making and coordination at the national, provincial and local levels.
- Develop cognitive abilities and awareness at all levels with key stakeholders for increased awareness of SLM programs, projects and activities.
- Develop comprehensive models of sustainable land management, in ecosystems of severely degraded dry lands.
- Use the model for climate monitoring and soil degradation because it has a potential for replication in many other sites in Cuba.

Other replication elements are:

- The design of P1 Project
- The implementation of P1
- Adaptive management
- The articulation between the results

Criteria	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, Efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

*Note: See revision of the Logical Framework of P1*

### 3.3. Achieved Results

The results were evaluated through the delivered documentation, especially in the following documents:

- PIRs
- AOPs
- PRODOC
- MTE
- Final report of the result 1 of Project P1: The regulatory planning systems for decision-making and coordination, work at the local, provincial and national levels. 2014.
- Final report of the result 2: The main actors at all levels reflect increased awareness on the issues of SLM in programs, projects and activities. 2014.
- Final report of the result 3: Area of intervention Guantanamo. 2014
- Final report of the result 3 and 4: Area of intervention Pinar del Rio. 2014

The documentation obtained was verified with interviews of the actors in different areas and with on-site observation. All the indicators and outputs are listed in the Logical Framework Annex and they enter the ranking of effectiveness and efficiency.

#### 3.3.1 Rating of Results

**Project Objective:** Provide training and awareness for planning, decision making and the necessary regulation for the application of SLM in Cuba was achieved and measured by an indicator that is satisfactory.

**Overall rating:** Highly satisfactory

The project objective is clear, practical and feasible within the time frame. The objective of the project responds to national and global problems and has a connection to the identified barriers. The indicators used for the project objectives are SMART. *See Revision of the Logical Framework del P1.*

Key questions for the rating of the results

- 1- Were the expected actions of the result achieved?
- 2- Was a baseline included, to identify the changes generated by the contribution of the result?
- 3- Are there Global Benefits being generated and reported?
- 4- Has the result managed to define, establish and institutionalize coordination processes?
- 5- Has the result helped shape key concepts?
- 6- Has the result provided design systems at different levels?
- 7- Has the result established processes to implement and institutionalize (includes awareness)?
- 8- Has there been promotion of results obtained from different media?

Note: To avoid being repetitive with the questions presented above, the decision was taken, to only answer them in the evaluation of each result in numeric order.

**RESULT 1:** The regulatory planning systems for decision-making and coordination, work at the local, provincial and national levels.

**Overall rating:** Highly satisfactory

The result one:

1. Is effective and has a high contribution in strengthening the capacities of partner institutions to adopt the principles and operational guidelines for SLM.
2. Has a baseline that identified the changes generated by the implementation of the result.
3. Makes a Contribution to global benefits and has established coordination processes and institutionalization of these.
4. Has had efficacy in supporting the decision-making processes regarding the SLM at the local, provincial and national levels.
5. Contributed to define key concepts and to design the system at national, provincial and local levels.
6. After five years of planning systems they operate at all three levels.
7. The result one has created working groups at the level of results which has made thematic alliances.

**RESULT 2:** The main actors at all levels reflect increased awareness on SLM issues in programs, projects and activities.

**Overall rating:** Highly satisfactory

The result two:

1. The staff assigned to the SLM increased, in the main guidelines of the ministries nationwide. Production entities receive counseling staff, publications about guidelines, policy, legal framework about SLM and others have been published. Raising awareness is an important step in making changes to the process that generates global benefits.
2. The 4 indicators have a well-defined baseline
3. The contribution of result two, to the generation of global benefits, was the creation of awareness in favor of SLM techniques at all levels.
4. The contribution of the result two was the preparation of the staff to provide technical assistance on issues of SLM. The University of Camagüey accredited a master's degree in SLM.
5. The main concept of result two is that key actors understand the benefits of SLM, supported and participated in its implementation.
6. In the areas of intervention, they succeeded in raising awareness with the development of environmental education on the topics soil, water and forest at different levels.
7. In the areas of intervention activities to promote and publicize the National Programme for improvement and soil conservation were made. As a result there has been an increase in requests from producers to access this financing. It is an example of how to set processes. The institutionalization of these processes comes as a second step if producers see that with these incentives they can improve their economic situation. The local population which falls within the 5 SD and the polygons of conservation of soil, water and forests, have received technical assistance, training and outreach materials and awareness materials about SLM.
8. The result was a central action of P1. Promotion of the benefits of the project in different media in the province (radio, tv and press).

**RESULT 3:** An integrated plan for the SLM applied to small-scale intervention in areas with severely degraded ecosystems and extreme weather conditions with potential for replication across Cuba, is developed and implemented at the field level

**Overall rating:** Highly satisfactory

Result three:

1. Has met the expected actions such as increasing the number of production entities; make provincial, municipal and planning at the site level plans of the result; SLM incorporating considerations in management plans at the local level; introducing techniques friendly to the environment, among others.
2. It included a baseline to identify the changes generated by the contribution of the SLM.
3. Activities and fulfilled actions resulted in three processes to generate global benefits.
4. Coordination process and institutionalization was achieved at the provincial, city, community and farm level. The plans have a legal basis is the condition for the institutionalization of coordination among the different institutions working in different plans.
5. P1 actions implementing the SLM achieved in the five demonstration sites and areas of replication and achieve sustainable agricultural development with sustained improvements in the economic, productive, environmental and social part. This is a key concept.
6. Land use plans of different levels and their implementation at the farm level is the basis for the planning and management system criteria of SLM.
7. The implementation process in result three is a technology adapted in the levels, as the implementation of systems sprinkler irrigation instead of gravity or groove. That technology has improved yields adapted water per unit of output per harvested unit. This also influenced the decrease in production costs. These processes of technology innovation are institutionalized through its profitability, its positive impact in the environment and their consistency with the policy guidance of agricultural production.
8. The project has published the positive results of the agricultural production of the demonstration sites and areas of replication.

**RESULT 4: A system for monitoring external weather events and degradation of water resources and land power is applied for the field level replication.**

**Overall rating: Satisfactory**

The result four:

1. The main objective is to strengthen capacities for the development and implementation of a monitoring system including an early warning system for hurricanes and drought and a system of long-term monitoring in the case of climate change, which serves as a tool for planning, decision making, regulatory systems and coordination at the local level in support of the SLM. They have met all these expected actions.
2. It included a baseline, which identified the changes generated thanks to the contribution of result four.
3. Compliance with the actions expected of result four is the basis to generate global benefits.
4. They have managed to establish a process of coordination and institutionalization because the main objective was to strengthen capacities for planning, decision making, regulatory systems and coordination at the local level.
5. A key concept is to build a communication network to exchange information on existing conditions, threats and management systems for land resources. Such a network should operate at national, provincial and local levels to have a complexity of information.
6. The result has designed this system at the level of Pinar del Rio and can be applied in other areas.
7. It is possible to establish the processes necessary for the operation of the early warning chain. The basis for the institutionalization of this process is the validity and importance of the information.
8. The process of early warning system has its own media such as newsletters short, medium and long term communication through emails.

## **RESULT 5: Monitoring and evaluation**

**Overall rating: Satisfactory**

Result five:

1. Actions have been met. Result five in its coordinating role assumed the methodological training of members of the functional organs of P1 at national and local level. Staff trained in handling relevant information from quarterly and annual documents.
2. The result five included a baseline to identify the changes generated by contribution of the same result.
3. Monitoring and evaluating indirectly generates global benefits in the context of the environment.
4. Internally of the CPP the result has succeeded in defining and establishing processes and institutionalized coordination with the CPP.
5. It has a unity like the project five that does all the monitoring for all projects of the CPP.
6. The project five has designed a system for monitoring and evaluation of result five.
7. The monitoring at different levels: the PIR, half term evaluation and final evaluation are implemented and institutionalized at the level of UNDP and CPP.
8. Communication for result five is internal to the CPP.

### **Relevance of P1**

The expected results were consistent with the mandate of GEF and the Desertification Convention and national policies. The P1 project has had under the CPP an exchange with other GEF projects and programs: the Sabana-Camaguey project was an exchange and with them they have agreed different lessons learned, for example, demonstration sites and areas of replication. The objective answers to the national context, especially the guidelines of economic and social policy of the party and the revolution in Cuba. That according to the national context is the basis for membership of the project. Together with the result they respond to the national problem of land degradation and therefore they offer a solution to the analyzed barriers (1-6). *See PRODOC*. The existing legal framework and development priorities are incorporated in the objective and mentioned results and also respond to global environmental problems.

### **Analysis of the effectiveness and efficiency of the results**

#### **Effectiveness:**

- The key project indicators are logically consistent with other indicators of the project.
- The project design is a logical sequence to achieve the desired results.
- The results were clear, practical, feasible, real within their time frame,
- The assumptions and risks affirmed are on the one hand logic and solid, but on the other hand it has weaknesses as explained in the previous chapters. They helped determine the activities and planned results, but they are not always sufficiently relevant to possible challenges.
- The assumptions and risks of the project were well articulated in the project identification form (PIF for its acronym in English) and the Project Document, but not always sufficient as mentioned above
- The indicators used for the project are SMART (for its acronym in English).
- External factors were taken into account (eg, effects of climate change, food / economic crisis, and so on) that are relevant to the findings.

#### **Efficiency:**

- The use of resources was efficient in the sense of achieving the expected results and objectives.

- The results are efficient because they have been achieved. The extent to which progress has been made in achieving these results was high and the project has guaranteed all products and investments. Also products have high efficiency, because it has allowed to build the results.
- The efficiency of the results is highly warranted. The resources have been converted into high economic results. Investment products also have had efficiency.

You can verify that the efficiency and effectiveness is highly satisfactory in the results:

- **Systems planning, decision making and coordination** are working at the national, provincial and local levels;
- **Cognitive abilities and awareness** have been developed, implemented, tested and validated at the local level;
- A **comprehensive model of sustainable land management** in dry lands severely degraded landscapes for application in small-scale ecosystems, it will be tested and implemented, with potential for replication in many other sites in Cuba, and
- A **model for climate monitoring and land degradation** has been implemented and tested, with potential for replication in many other sites in Cuba.

### **The sustainability of results**

- There are no financial risks that could endanger the sustainability of the results of project P1. The education and training system is the basis and it is the mechanism that the project has installed to ensure economic and financial sustainability after the end of the P1. The idea is that producers can work economically profitable with their knowledge.
- In Cuba there are no social or political risks that could threaten the sustainability of project results P1.
- The concordance of the project with the political guideline is a specific situation in Cuba for the sustainability of the results of P1. The various stakeholders in Cuba noted with interest the program's benefits continue to flow, especially with its positive socio-economic impact at the level of the producers.
- The project has specific outcomes with sufficient awareness / knowledge stakeholders to ensure the sustainability of long-term objectives of P1.
- Linking with the guidelines will make it very unlikely that the sustainability of the benefits will be jeopardized through the political authorities of Cuba.
- The project installed systems needed for accountability and transparency, as well as technical knowledge.
- There are ongoing activities that pose an environmental threat to the sustainability of the project results.
- The government has enacted legislation and / or has developed policies and regulations in line with the objectives of the project. This is a basis for the future sustainability of the benefits.

The sustainability of results is likely and the benefits of the initiatives will continue once the project assistance by GEF is finished. The State of Cuba with different ministries feels responsible to ensure this sustainability. An advantage of the development model of Cuba is that society can ensure the sustainability of these results attained.

## Summary of results

Criterion	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness y efficiency</b>	Highly satisfactory
<b>Sustainability</b>	Likely

Note: See revision of the logical framework of P1

### 3.4. Conclusions

The project design was good in the sense of its strategy. The objective set for the project is feasible and meets the needs mentioned. The five results and indicators have made good articulation among themselves. The quality of the risk matrix in the logical framework is not fully developed.

The analysis of the project stakeholders in the design is very comprehensive and covers the entire spectrum of social individual farmers, members of cooperatives, peasant leaders, community leaders, workers of state enterprises and extensionists. Also ministries actors are integrated into the project because of its complexity.

The project implementation is specifically being the first PPP project implemented and managed by UNDP and led by AMA. Although the structure of the project management appears vertical, it works well and has a flow of governance from the bottom up and top down.

In practice, risk management is very effective, especially through his instrument adaptive management. Monitoring and evaluation work well and the recommendations of the mid-term review have been incorporated into the annual work plans and some restructuring of the project.

A problem that the project has had in recent years is the underspending of GEF funds, with nearly 50% in the third year. In the last three years it has corrected this and through an extension in April 2015 they executed the full amount. The amount of government funding of Cuba was higher than expected and actually contributed ten times more than the GEF funds.

The project has good results and experiences can be replicated in projects 2, 3 and 4 and in provincial and municipal parks for the conservation of soil, water and forest.

#### Essential aspects of P1

The strategy P1 left the following essential aspects necessary for the implementation of SLM in a sustainable manner. As mentioned before, the project objective and policy guidelines of the government are in tune, so the focus has concentrated on the site where farmers work the land.

The first essential aspect is the creation of systemic and institutional capabilities in the provinces where the P1 was implemented. The important point is to create interdisciplinary teams on the issues and institutions working for SLM criteria. With the P1 they achieved the creation of a model of integration and cooperation between the actors of the institutional and local levels with capacity building at the national, provincial and local levels, which will support national needs for planning and coordination. This model is important because it matches with the national policy, it is effective because it can install results. It is efficient with the investment of resources. Working in tune with the government gives a likely sustainability.

Criterion	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

Note: See revision of the logical framework of P1

### **Socio-economic impacts on communities**

Socio-economic impacts on communities of the demonstration sites and areas of replication, is another essential aspect of P1. Only if it can change the consciousness of the producer, this will change the way we produce. The process of desertification in Cuba is due to the incidence of extreme events and the work of man, due to producers with little knowledge and technology is not suitable for the ecosystem so that the soil will automatically enter a process of degradation. As a result of this destruction mankind will win less every year but environmental problems continue, it is a vicious circle that must be broken.

With more information, more knowledge, a good planning process, a technology adapted to the environment and plants and animals suitable for the site you can change the socioeconomic landscape of the producer. That is the hope of P1 and has become reality. Production with friendly technology environment has increased the performance of the production and income of rural families, so in some of the demonstration sites and areas replica salary of producers has increased in recent years in relation with the baseline.

Criterion	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, efficiency and impacts</b>	Highly satisfactory
<b>Sustainability</b>	Likely

Note: See revision of the logical framework of P1

### **Strengthening key institutions**

The strengthening of key institutions is another essential point in the project strategy. For the P1 the key institutions are:

At the national level key institutions strengthened to support the project intervention at various levels and the adoption of the SLM approach, among which are: Soil Institute, the Institute of Tropical Geography, the Quality of MINAG, the Centre National Land Control, National Institute of Sugarcane, among others.

The laboratories responsible for monitoring the biophysical soil condition in Guantanamo and Pinar del Rio are important tools for the operation of the SLM. Without their service to the producer, the SLM cannot be successful.

The Meteorological Center in Pinar del Rio has an instrument and an important methodology: The early warning weather events alert system is a combination of different data for forecasts and is an important condition for the success of the SLM.

These institutions are established at the provincial level, but offer their services in the municipalities. It is seen that the project strategy is to strengthen local institutions.

Criterion	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

Note: See revision of the logical framework of P1

### **Partnerships developed by P1**

The fourth essential element in the strategy of the project, are the alliances. The partnerships developed by the Project 1, in its role as coordinator, working with different institutions and having managed to create and disseminate new SLM specialists in the subject. These specialists working in institutions, centers, areas of intervention and rebuttal, with its high knowledge and experience are a condition to give sustainability to the struggle for the SLM.

An example is the Masters in Sustainable Land Management with the University of Camagüey. The aim is to provide knowledge and develop skills with high levels of timeliness, quality and excellence to researchers, teachers and professionals from the branches of the agricultural, environmental and tourism sciences to be able to perform research work, development and innovation and exercise teaching duties in the subject SLM.

The project's innovation is that it is linking the various actors in a partnership with a common goal: the SLM.

Criterion	Rating of the evaluation
<b>Relevance</b>	Relevant
<b>Effectiveness, efficiency and results</b>	Highly satisfactory
<b>Sustainability</b>	Likely

Note: See revision of the logical framework of P1

## 5. Recommendations

**Task: To recommend measures to ensure the viability and sustainability of the project and its results to guide the rest of the CPP.**

### **Recommendation One:**

The actions of P1 should focus mainly on the following issues: Strengthening capacities for planning at all levels in decision-making, capacity building in regulatory systems, awareness of actors on the issue of SLM and a introduction of technology to ensure sustainable management of lands were successful, viable and sustainable in the P1. It is important to replicate these actions also in the future actions of P2, P3 and P4.

### **Recommendation Two:**

For the sustainability of the SLM it is important to publish the most relevant advances on results, also to participate in the international discussion about SLM and conditions for implementing a successful project.

Advances in the results that should be discussed at an international level are:

- **Systems planning, decision making and coordination** are working at the national, provincial and local levels in Cuba;
- **Cognitive abilities and awareness** have been developed, implemented, tested and validated at the local level in Cuba;
- A **comprehensive model of sustainable land management** in dry lands severely degraded landscapes for application in small-scale ecosystems, it will be tested and implemented, with potential for replication in many other sites in Cuba, and
- A **model for climate monitoring and land degradation** has been implemented and tested, with potential for replication in many other sites in Cuba.

### **Recommendation Three:**

Strengthen the design and scope of the digital platform that guarantees an adequate system of knowledge management in the area of sustainable land management.

### **Recommendation Four:**

Systematization of the results received. The success of the P1 as highly successful project requires systematization of experiences in their relationship with the government policy guideline of Cuba. Systematization of lessons that can be drawn for other UNDP project - GEF internationally and make it more relevant, effective and sustainable.

### **Recommendation Five:**

Integrate scientific research program to attend the results of P1. For this scientific research program it will be recommended to work as a partnership with international universities.

### **Recommendation Six:**

The basis for the success of Project P1 is the harmony between government guidelines and policies of the project, so it is advisable to prioritize actions for the results of future projects are introduced as regulatory policies platforms to Sustainable Land Management.

**Recommendation Seven:**

It is proposed to increase the international dissemination of results obtained in P1 in conferences and journals of high international prestige.

**Recommendation Eight:**

Knowledge and awareness of the actors are a basis for sustainability, so in the future it should be analyzed how changes can be made for sustainable use of natural resources and further enhance from the project and national programs education at all levels to result in greater influence on the conscience of the main players.

**Recommendation Nine:**

The improvement in the income of farmers is an essential condition for their sustainability, so it is important for future projects to generate increases in revenue for producers, improving their knowledge and access to finance and markets.

**Recommendation Ten:**

With the support of CPP program and within the framework of the National Programme to Combat Desertification and Drought they should continue establishing partnerships and designing actions that contribute to be incorporated into the cooperative sector in the country's philosophy of Sustainable Land Management.

**Recommendation Eleven:**

GEF financing should only be a start funding while alliances with national and international donors are established. The reason for partnerships is to ensure the future viability and sustainability of GEF projects. GEF funding in the P1 project was just a start for necessary actions SLM and thus increase the financial effectiveness and the co-financing.

**Recommendation twelve:**

Enlarge sites in demonstration areas for replication of good practices of SLM, which help conserve resources such as soil, water and forest. If the application of SLM practices are done in all municipalities of Cuba, producers can copy the successful examples in their farms.

**Recommendation thirteen:**

For the success of future projects it is important to have sufficient resources in consulting and training in all the demonstration sites. If the SLM is integrated in the policy guidelines of Cuba, Cuban society will invest more money on human resources in this regard, although this is not within the area of influence of the project. The important is the correlation between the development objective of the project and policy development.

**Recommendation fourteen:**

Increase the diversity of both animal and vegetable production incentives reducing the vulnerability of the population to disasters. The diversification of agricultural production, especially with native breeds and varieties is the basis for adaptation to climate change and if possible to resist natural disasters. There is a wide range of domestic animal breeds and varieties adapted to the ecosystem that can withstand the ravages of nature in Cuba.

**Recommendation fifteen:**

Socio-economic impacts that have been achieved through the system of farm planning, the introduction of new technologies, training and counseling of producers are satisfactory. These impacts are the basis for any change in the consciousness of producers locally, so it is important to publish the increases in production yields.

**Recommendation sixteen:**

The experiences of the early warning system are very successful and a condition for using the SLM production methodology. These experiences need a nationwide systematization to make them part of the knowledge of the producers.

**Recommendation seventeen:**

Adaptive management was a tool built into the P1 to fit problems and circumstances that have affected the implementation of Project P1. With great creativity the responsible have developed this tool to react to these circumstances. It is recommended to systematize these experiences and develop an internal guide or CPP procedure on the adaptive management instrument that is part of the systematization process, which must be able to be used in future projects well as in the P2, P3 and P4.

**Recommendation eighteen:**

Develop a monitoring system for the P1 sustainability project to convert the scope of their results in a social and economic impact for farmers in the area of influence.

**Recommendation nineteen:**

Continue to build alliances with the capabilities and awareness of the actors to strengthen SLM in Cuba to help maintain productivity and ecosystem functions in the future.

**Recommendation Twenty:**

Adapt to the circumstances of Cuba for imports of equipment and supplies and make a greater effort in selecting these, considering the existing realities for import.

**Recommendation Twenty one:**

A foundation for the success of the P1 is the partnership with all stakeholders at all levels, so it is important to ensure that the logical framework is understood in depth from the start, not only for the central management team but for all actors and others involved.

**Recommendation twenty two:**

A basis for the success of the SLM, are the actors at all levels sensitized on the issue, identified earlier by different institutions. Once sensitized and trained these actors are important for the realization and sustainability of the project activity.

**Recommendation twenty three:**

The SLM process does not end with the closing of P1, so it is important that the technical office of the implementation of P1 does not close when the project completes, but to continue as co-coordinators of successive projects to finish the CPP in 2018.

## 5. Global environmental benefits

Land degradation in Cuba is endangering the functions, resilience and productivity of ecosystems in large areas of the island, imposing adverse impacts on the livelihoods of large numbers of local people and exacerbating unsustainable demographic trends. The important biodiversity is affected in the marine eco-region of the Greater Antilles of which Cuba is a member. *See National Study on Biological Diversity in the Republic of Cuba. IES, 1998.*

The demand for food production in a fragile ecosystem can cause direct environmental factors with environmental pressures, as a change in habitat and species loss, overexploitation of the land, among others. This causes very direct changes in the state of the environment, such as changes in freshwater biodiversity. Likewise, changes in the state of the environment causes changes in human well-being, this will be the proof that man depends on an intact nature and if Cuba manages to integrate SLM into their production system and as an ultimate goal, achieves reducing soil degradation, there will be sustainable development.

The national impact of land degradation in the quality of life of a large number of Cubans, has also significant global impacts. Land degradation is distorting ecological and hydrological processes in large parts of the island; an estimated 14% of the country has been affected by desertification, 1.0 million hectares by salinization, 2.9 million ha by strong erosion, 2.7 million ha by poor drainage, 1.6 million by high levels of compaction, 2.7 million ha by high levels of acidity, and 4.7 million hectares by low volumes of organic matter. *See National Program to Combat Desertification and Drought, CITMA, 2000.*

The increased erosion affects biodiversity in international waters in a globally important way: Cuba is one of the main sources of runoff sediment which is affecting the health of corals and other components of marine fauna in the ecoregion Marina of the Greater Antilles, one of 200 ecoregions with highest global priority, identified by the World Wildlife Fund, whose conservation status is defined as critical or threatened. *See National Study on Biological Diversity in the Republic of Cuba, IES 1998; World Wildlife Fund, 2005).*

The P1 with the strengthening of SLM in degraded areas, facilitates innovation, demonstration and replication of good practices of sustainable land management, including traditional systems in Cuba that are of potential interest to the countries of the wider Caribbean. The multiplier effect generated by the process of social inclusion in Cuba with the effective participation of major groups and stakeholders is a huge achievement for the conservation of the environment and land under the system of sustainable land management. That great reconversion of land in Cuba, for example, of the sugar production, are great achievements for global environmental benefits. One indicator is the increase of forest area in Cuba.

The P1 will directly result in the reduction of land degradation in an area of 721 ha of farmland, 80 ha of grassland and 33 ha of forest land in five demonstration areas and replication sites where it will be applied. It is expected that the rate of erosion currently estimated between 10 and 40 t / ha / year is reduced by between 10 and 70%. These changes will bring very significant benefits of increasing local food production.

Globally, the P1 and the CPP project will bring as a result an increase in ecosystem functions in 1 104.439 has of farmland, grassland and forest land, as estimated in the CPP program. This implies that soil losses are not exceeded by its dynamic recovery as a result of the measures taken to protect it. In addition to the benefits related to the reduction of land degradation, the project generates significant overall benefits in other areas of interest. Reducing the rate of erosion will benefit international waters. In the area of biodiversity the project will reduce the pressures on important global ecosystem called: Cuban Pine Forest, Cuban Dry Forest and Cuban Humid Forest.

Global environmental benefits of P1 are based on the fight against desertification and land degradation. Experiences designed to curb land degradation are highly important globally. In its 2020 GEF strategy and strategic priorities, GEF has identified the key systems of land and has identified critical points. One of these are: changes in land use, loss of biodiversity and overuse of freshwater in the world. The main points are to focus on the factors that cause environmental degradation and deliver integrated solutions considering that many of the challenges to the global environment are interrelated.

The value of the global environmental benefit is that these experiences can be replicated in other countries. Furthermore, Cuba as a corridor for migratory birds has the responsibility as an island to ensure this corridor. The overall benefit of P1 is an important step to provide an alternative to land degradation through a positive economic impact for producers. The important thing is that the actors recognize that friendly production with natural resources is also the basis for a cost-effective and sustainable production.

## **6. Lessons Learned**

Identify key lessons learned that can be spread among relevant GEF projects and between the authorities and local and national actors involved in the project and involved in the CPP.

**The success of P1 in Cuba depends on political, stability of the government and the country's constitution.**

### **Lesson learned one:**

Only actions that have the approval of long-term government guarantee the sustainability, therefore it is necessary to build a project based on the guidelines of the government so there are no contradictions between government and project.

### **Lesson learned two:**

The orientation of the expected results regarding the political guideline is the basis for the success of the project.

### **Lesson learned three:**

The policy guidelines and strategy of project P1 that are in tune with the needs of producers in the SD are the basis to produce in an effective, efficient and friendly way with the environment.

### **Lesson learned four:**

A project that is in tune with the reality of the country and its government, will have more access to counterpart funds from the government as could be seen in the case of P1.

### **Lesson learned five:**

Only if there is a line between protection of Natural Resources, food security of local actors and a development of the producers themselves, Natural Resources can be protected in the long term.

### **Lesson learned six:**

The actors have learned that a partnership at all levels is possible and can solve the problems of producers locally.

## **P1 success depends on the design of the Project**

### **Lesson learned seven:**

The active participation of stakeholders from different institutions and groups of producers is the basis for the sustainability of project P1, the alliance of stakeholders is the basis for further work in favor of SLM and thus the sustainability of the process is guaranteed.

### **Lesson learned eight:**

The exact selection of actors is important in the design of the project. For the construction of the anticipated results it is important that all stakeholders in the project are present and participate actively.

### **Lesson learned nine:**

The project design must correspond with the reality of the country in an economic, ecological, political and social sense.

## **P1 success depends on the implementation of the Project**

### **Lesson learned ten:**

The selection of equipment and supplies that are purchased on a project of this type with imports must be acquired by the project managers as early as possible, to not waste time and delay the progress of the project.

### **Lesson learned eleven:**

The risks can be managed with adaptive management. This adaptive management, which is an instrument of project management, is necessary to answer all the problems and circumstances that arise in the path of the project.

### **Lesson learned twelve:**

Only an understandable language of the logical framework ensures the active participation of producers. Producers are, in SLM projects, key stakeholders and without them a SLM project cannot be successful.

### **Lesson learned thirteen:**

Partnerships enable more effective and efficient use of funds. Therefore it is necessary to form alliances at all levels because funds are always a limiting factor in the implementation of projects. The partnership between UNDP - GEF and the government of Cuba was successful in fundraising.

### **Lesson learned fourteen:**

Do not overload the workers of institutions with tasks outside the project to ensure the quality of their work.

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## Acronyms

AMA	Environmental Agency
ANAP	National Association of Small Farmers
AOP	Annual Operational Plans
AWP	Annual Budget
AZCUBA	Sugar Enterprise Group
CCS	Credit and Service Cooperative
CCSF	Cooperative of Credits and Empowered Services
CEDEL	Local Development Center
CER	Combined Expense Reports
CGB	Ranger Group
CIGEA	Center for Environmental Education and Information Management
CITMA	Ministry of Science, Technology and Environment
CPA	Agricultural Productive Cooperative
CPP	Country Program Partnership
DCI	Directorate for International Cooperation
DMA	Directorate for Environment
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
IAGric	Institute of Agricultural Engineering
IES	Institute of Ecology and Systematics
IGT	Institute of Tropical Geography
INRH	National Institute of Hydraulic Resources
INSMET	National Institute of Meteorology
IPF	National Institute of Physical Planning
IS	Soils Institute
MEP	Ministry of Economy and Planning
MES	Ministry of Higher Education
MINAG	Ministry of Agriculture
MINCEX	Ministry for Foreign Investment and Economic Collaboration
MINED	Ministry of Education
NR	Natural Resources
OMP	Project Management Office
PI	Project “Fortalecimiento de Capacidades para el Planeamiento, la Toma de Decisiones, los Sistemas Normativos y la Sensibilización/Manejo Sostenible de Tierras en Ecosistemas Severamente Degradados”
PIR	Project Implementation Review
RTA	Regional technical advisor
SCCS	Cuban Society of Soil Science
SD	Demonstration Sites
SLM	Sustainable Land Management
UBPC	Basic Unit of Cooperative Production
UEB	Base Business Unit
UNPD	The United Nations Program for Development

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## Project stakeholders

In the national, provincial and municipal levels actors participated, associated with different agencies of the central state administration or civil society organizations, representing the academic, scientific, business, civil society, local government bodies, regulatory authorities and policy , among which stand the following, for their driving role regarding different lines of work of the project:

- By the Ministry of Agriculture: Soil Institute, Department of Science and Technology, Quality Department, Institute for Research in Agroforestry Research Institute of Agricultural Engineering, National Control Centre and National Forest Land Management, as well as representations in provincial and municipal offices.
- For the Ministry of Science, Technology and Environment: The Department of the Environment, the Directorate of Science, the Environment Agency Program and Project Management and Information and Communication Group and its research centers: Institute of Tropical Geography, Institute of Ecology and Systematics and Institute of Meteorology; Center for Environmental Inspection and Control, the Centre for Local and Community Development, and the local offices of Science, Technology and Environment, Institute of Scientific and Technological Documentation and Information.
- Ministry of Higher Education: Directorate for Science and Technology, University of Pinar del Río "Hermanos Saiz" Agrarian University of Havana "Fructuoso Rodríguez" University of Cienfuegos "Carlos Rafael Rodríguez" University of Camagüey "Ignacio Agramonte Loynaz" University of Holguín "Oscar Lucero Moya" Guantanamo University, Center for Demographic Studies, part of the University of Havana, National Institute of Agricultural Sciences, the National Institute of Animal Science and Experimental Station of Pastures and Forages "Indio Hatuey "
- Ministry of Education: Directorate for Science and Technology, Center of Environmental Education of the Pedagogic University "Félix Varela" of Villa Clara, Agricultural Polytechnic Institute "Villena Revolución" and University of Pedagogical Sciences of all provinces.
- Institute of Physical Planning: Territorial Planning Department and its representations in the Provincial and Municipal Physical Planning.
- National Institute of Hydraulic Resources: Department of Science and Technology and its local offices.
- Sugar Group Azcuba: Research Institute about sugarcane.
- Non-Governmental Organizations: National Association of Small Farmers (ANAP), Cuban Society of Soil Science, Cuban Animal Protection Association (ACPA) and Foundation "Antonio Nunez Jimenez" Nature and Man Section of the Cuban Society Fotonaturaleza Zoology.