Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey Ecosystem

CUB/98/G32 (GEF)
CUB/99/G81/A/5G/99 (Capacity 21)

FINAL EXTERNAL EVALUATION

Prepared for UNDP/GEF/Capacity 21
and
The Government of Cuba

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LIST OF ACRONYMS AND ABBREVIATIONS

AMA	Environmental Agency, CITMA
ANC	National Aquarium of Cuba, CITMA
CECA	Center for Coastal and Environmental Studies
CICA	Center for Environmental Inspection and Control, CITMA
CIEC	Coastal Ecosystem Research Center, CITMA
CIET	Terrestrial Ecosystems Research Center
CIGEA	Center for Environmental Information, Management and Education, CITMA
CIM	Center for Marine Researches of the University of Havana, MEP
CIP	Center for Fishery Researches, MIP
CITMA	Ministry of Science, Technology and Environment
CNAP	National Protected Area Center, CITMA
DPA-CITMA	Direction of Environmental Policy of CITMA
DPPF	Provincial Delegation of Physical Planning, MEP
ENPFF	National Enterprise for the Protection of Flora and Fauna, MINAGRI
GEOCUBA	GEOCUBA, MINFAR
GoC	Government of Cuba
ICLEI	International Council for Local Environmental Initiatives
ICM	Integrated coastal management
ICMA	Integrated coastal management Authority
IDO	Institute of Oceanology, CITMA
IES	Institute of Ecology and Systematics, CITMA
IGEO	Institute of Tropical Geography, CITMA
IGP	Institute of Geology and Paleontology, MINBAS
IIED	International Institute for Environment and Developmentüüüü
IIF	Institute of Forestry Researches, MINAGRI
INRH	National Institute of Hydraulic Resources
INSMET	Institute of Meteorology, CITMA
IPF	Institute of Physical Planning, MEP
ISPJAE	Higher Polytechnical Institute “José Antonio Echevarría”, MES
MEP	Ministry of Economy and Planning
MES	Ministry of Higher Education
MICONS	Ministry of Construction
MIMC	Ministry of the Industry of Construction Materials
MINAGRI	Ministry of Agriculture
MINAZ	Ministry of the Sugar Industry
MINFAR	Ministry of the Armed Forces
MINTUR	Ministry of Tourism
MIP	Ministry of Industrial Fisheries
OLPP	Local Organizations of the People’s Power
SCE	Sabana - Camagüey Ecosystem
UH	University of Havana, MEP
UMA	Environmental Unit, CITMA
UNAIC	National Union of Architects and Engineers of Cuba

1. EXECUTIVE SUMMARY

This report presents the findings and recommendations of the final external evaluation of project CUB/98/G32 (GEF) and CUB/99/G81/A/5G/99 (Capacity 21), **Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey Ecosystem.** This project is the second of a three phase project series that was originally conceived by the Government of Cuba (GoC) in 1992. The 1st phase (1993-1997) provided a Strategic Plan that served as the basis for the 2nd phase design, and this evaluation assesses the relevance, performance and success of the 2nd phase project (1999-2004). Lessons learned have been identified, and recommendations provided to assist in improving the design and implementation of future projects.

The project focuses on the Sabana - Camagüey Ecosystem (SCE), a 465 km. strip along the central north coast of Cuba. It includes the northern watersheds, offshore keys, adjacent marine shelf, and oceanic Exclusive Economic Zone of 5 provinces. The system of keys is the largest in the Caribbean and in number represents 60% of the 2,515 Cuban keys. Mangrove swamps and seagrass beds are well distributed between the keys and along the adjacent marine shelf and mainland coast. The keys, beaches and coral reefs of the region are well known for their natural quality and beauty, and the larger keys are populated with diverse plant formations. This variety of habitat supports a great diversity of marine and terrestrial biota and a high level of terrestrial endemism, which places this zone among the richest in biodiversity in Cuba and the Caribbean. This part of Cuba also provides much of the winter habitat for migratory birds.

The project's development objective is to secure the protection of the biodiversity of the SCE. The specific objectives are to (1) establish 8 key protected areas; (2) consolidate the institutional co-ordination capacities for biodiversity conservation in the ICM context; (3) educate and inform stakeholders about biodiversity conservation; and, (4) strengthen capacities for ICM to attain sustainable development.

This is an ambitious and well-conceived project links a wide range of issues and activities within a comprehensive and synergistic framework. In particular, the early commitment by GEF to support a three-phase project over a long-term horizon has allowed the design approach to evolve in an incremental manner - building capacities, consolidating processes and enhancing prospects for sustainability. During implementation it became clear that the project objectives and implementation strategy were both relevant and pertinent to the threats and opportunities identified and analyzed during the 1st phase. UNDP has been a key partner for the Government of Cuba within a hostile international context, and the fact that UNDP deals with all sectors and interests, and is able to bring together the inputs of the GEF and Capacity 21, has been especially useful from the standpoint of a cross-sectoral ICM project.

The only major flaw in project design was the underestimation of the importance and level of effort, resources, and activities required to achieve sustainable finance of ICM activities in general, and the management of protected areas in particular, critical factors for the success and lasting impact of the Project. Of less impact over the long-term, but still important, was the relatively low level of project support provided for the development of information systems, which lagged behind the inventorying and monitoring component, thereby undermining opportunities for informed analysis, application of results, cross fertilization, and synergy.

The project exhibits an extraordinary level of institutional and individual participation and buy-in at every level due mainly to the full integration of activities into the on-going programs of the 62 implementing institutions, and the varied opportunities for cooperation, learning and capacity-building. Opportunities for direct participation by communities, and especially resource users, were relatively less frequent than those for institutions. Because of the extent of provincial and national institutional participation, project methods and approaches have been widely replicated or adapted to other areas within Cuba. Participation of project staff in international events has further extended project experiences internationally, especially within the Caribbean.

Several implementation approaches are evident, responding to the specific needs of the research, conservation and capacity-building components. However, the general sequence seems one of increasing diversification over time, tending from a more scientific focus on inventorying and monitoring towards broader management and sustainable development issues with different sectors. This has enabled the project team (and CITMA as well) to widen their scope of collaboration, opening new doors and giving more attention to the social and economic dimensions of ICM.

The logical framework has been used as the basic structure for the project in terms of planning, implementation, and evaluation. The annual and mid-term evaluations served to identify project strengths and weaknesses, and corrections in activities and budgets have been made. No changes have taken place in terms of the project's specific objectives. The technical capacities associated with project implementation have been very high in science, education, awareness, and capacity-building; average with respect to natural resource management; and deficient with respect to sustainable finance, and landscape architecture. Thanks to the project's education, awareness, and capacity-building components, the general level of knowledge and experience related to biodiversity conservation in the ICM context has increased dramatically within the project area at all levels, and there is a good knowledge of the experiences and practices in other countries, especially in the Caribbean.

The cost effectiveness of project investment has been extraordinary. Up to July '04, the percent of actual versus planned expenditures was 97.7%. At the same time, every effort has been made to stretch funds by leveraging in-kind support, asking consultants to reduce their rates, and by voluntarily cutting perdiem levels. Co-financing commitments have been honored or exceeded. On balance, the work of the Project Coordinating Unit has been extremely positive in terms of dedication, enthusiasm, technical capacity, innovation, and leadership. The system of annual contracts with implementing organizations has been effective in ensuring timely implementation of activities, external evaluation of annual results, and the use of corrective measures to improve performance where necessary.

The objectives and outcomes of this project have largely been met. This is an extraordinary achievement in any context because the standards established in the project document are ambitious and demanding. It is particularly laudable because of the complexities and high level of participation in the project, a common characteristic of the ICM approach to biodiversity conservation. The evidence gather by the Evaluation Team leads us to rate the attainment of the project objective and outcomes as follows (HS = Highly Satisfactory, and S = Satisfactory on a 4 point scale) :

- Project Objective – conservation of SCE biodiversity HS

- Outcome 1 - 8 key protected areas established and functioning S
- Outcome 2 – institutional capacities for ICM HS
- Outcome 3 – communities and key actors understand need and importance of biodiversity conservation HS
- Outcome 4 – awareness and capacity for ICM strengthened among institutions, sectors, and communities HS

The establishment, management, and sustainable finance of the 8 protected areas originally targeted by the project (Objective 1) is the only element of the project that has not largely achieved the results outlined in the project document. Only 4 of the targeted protected areas have been legally established to date. Although work has continued on the 4 undeclared areas, they have not be legally established because of the need to resolve conflicting interests which has taken longer than initially expected. Interestingly enough, 2 other protected areas, not originally targeted in the Project Document, have been declared in the project area. Management and operation plans have been developed and are being implemented in the 4 legally established target areas by trained staff. In the 4 undeclared target areas, basic conservation plans are in place, and trained staff is implementing basic protection activities in 3 of the areas. The development of ecotourism products for sale to the tourism industry, one of the most immediate potentials for sustainable finance, has not moved ahead as quickly as expected, and the prospects for sustainable finance to maintain the management of these areas remains a hope, and central need, for the future.

The now internationally-accepted process for ICM development and implementation (see Olsen, 2003) includes five basic, although not necessarily consecutive, steps. These include: (i) issue identification and assessment; (ii) preparation of the Plan; (iii) formal adoption and funding; (iv) implementation; and (v) self-assessment and external evaluation. It is clear that the SCE project, nearing the conclusion of its 2nd Phase, has achieved significant progress in all five categories, but with some deficiencies in parts of the project cycle.

For instance, the project has played a key role in developing the institutional capacities for ICM at the provincial level. At the overall SCE level, however, the ICM Authority has been legally established, but has not yet been implemented, and will need financial support from external partners (declining over the next project period and beyond). It will also require financial and in-kind support (i.e., institutionalization) from the Government of Cuba (increasing steadily over time) during a 3rd phase of the project. ICM process sustainability will be demonstrated by the continued investment in and Government support to the project's long-term goals beyond external project support.

The first and second phase projects have together played a central role in providing the concepts, relevant field experience, and information for the updating of national legal and policy instruments. These include the National Environmental Strategy and the Biodiversity Strategy and Action Plan, as well as a significant number of laws, decrees, resolutions, and regulations regarding the conservation and sustainable use of biodiversity, especially for fisheries, tourism, and infrastructure development.

Taken together, the activities to implement objectives 3 and 4 (environmental education, awareness, and capacity building) have had an enormous impact on project results, and because of the Capacity 21 contribution, much more was achieved than could have possibly been achieved by the GEF Project alone. These achievements complement the

advances made with respect to the legal and regulatory framework, and together, they have established a propitious enabling environment for biodiversity conservation in the SCE. Some of the more positive factors of the approach taken were the targeting of a broad range of groups at all levels, the focus on problems identified by stakeholders, identification of specific attitudes that require change, testing and evaluation of courses and materials, and the introduction of revisions based on these evaluations. It is especially impressive to note that over 2,000 decision-makers, a group often difficult to reach, have received environmental education and technical capacity-building courses.

The concerns regarding the financial and institutional sustainability of the project articulated in the mid-term evaluation remain. Financial sustainability is of particular concern. The original project design was deficient in this regard, and the lack of emphasis, strategic thinking, and resources assigned to this component in the beginning has been exacerbated by the lack of technical capacity to deal with the subject within the Project Coordination Unit. The result is that little progress has been made, most attention has been paid to the more theoretical aspects of resource economics, and no use has been made of the extensive practical experience that has been gained throughout the region by environmental and protected area funds, some of which are now more than 10 years old.

The central recommendation of this evaluation is that a third phase project be developed and undertaken in keeping with the original vision of a three phase project. This is justified by the need to achieve financial sustainability so that the achievements of the first two phases can be maintained and enhanced. This is the element that requires the greatest emphasis in future project interventions, and can be achieved by (1) developing and marketing new ecotourism or other natural products; (2) appropriately valuing and charging beneficiaries for existing ecosystem services; and, (3) developing mechanisms to capture international and domestic funding to pay for the global benefits generated by biodiversity conservation in the SCE. A Sustainable Finance Unit is needed to research and develop the most cost- effective sources of funding, train ICM and protected area staff in the development and implementation of business plans, provide consultant services to value and calculate fees for ecosystem services, assist in identifying alternative livelihoods that are less damaging to the environment, and ensure a more equitable distribution of costs and benefits and/or provide compensation or incentives for those shouldering the majority of the costs associated with project interventions (e.g., Ministry of Fisheries and their fishing sector clients).

Further investment is required to support the startup of the ICM Authority for the SCE and develop and implement an ICM plan that would broaden and deepen current coastal management activities, especially regarding land-use changes along the coast, fisheries, tourism; and enhanced outreach and partnerships nationally, regionally, and internationally. Additional work is also required in capacity-building and environmental education; stronger participation of resource users in decisions affecting their livelihoods; more proactive natural resource management, enhancement of monitoring processes by encouraging participation of citizens and NGOs; the building of linkages among sectoral and provincial planning and budgeting systems; the promotion of alternative livelihoods to replace those that are having negative impacts on biodiversity conservation, enhancement of the accessibility of the data base for stakeholders, and the development of realistic business plans for protected areas within the SCE.

The key lessons learned are that (1) widespread participation has high upfront costs, but is well worth it in the long-run, especially when combined with environmental education and

capacity-building that results in informed and meaningful participation; (2) group capacity-building activities with representatives from many institutions sets the stage for future cooperation; (3) early successes in demonstrating environmental and socio-economic benefits from project activities motivates stakeholders; (4) the ecosystem approach, though it often implies a very large project area, is still the most relevant unit for a biodiversity project; (5) sustainable finance is an extremely difficult issue that requires a realistic time-frame, significant financial resources, and relevant expertise; (6) information technologies must be properly resourced from the beginning and maintained and upgraded throughout the project; and (7) the inclusion of both GEF and Capacity 21 inputs in a common project creates synergies and value-added that could not be obtained by separate projects.

2. INTRODUCTION

This report is a product of the final external evaluation of the project, **Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey Ecosystem,** CUB/98/G32 (GEF) and CUB/99/G81/A/5G/99 (Capacity 21). This is the second of a three phase project series that was originally conceived by the Government of Cuba (GoC) in 1992. The 1st phase (1993-1997) focused on the provision of information for identifying appropriate conservation measures and provided a Strategic Plan that serves as a foundation for the operation of the proposed Sabana - Camagüey Integrated Coastal Management Authority (ICMA).

The purpose of this evaluation is to determine the relevance, performance and success of the second phase project (1999-2004) by assessing the early signs of potential impacts and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. As part of the evaluation process, the lessons learned through project implementation are identified and documented, and recommendations provided to assist in improving the design and implementation of future projects.

The key issues to be addressed include the formulation and implementation of the project, the results obtained, lessons learned, and recommendations. The project formulation issues focus on conceptualization and design, country-ownership, stakeholder participation, replication approach, and other impacts. The issues to be addressed in terms of project implementation are the implementation approach, the monitoring and evaluation system, stakeholder participation, financial planning, and execution and implementation modalities. The results of the project are addressed by analyzing the achievement of objectives, the attainment of outcomes and their sustainability, and contributions to the upgrading of skills for the national staff.

The evaluation was carried out by a 4 person team from the U.S., Canada, Bolivia, and Cuba with specialization in protected areas (including sustainable finance of protected areas), integrated coastal management, social and community issues, capacity building, and marine science. The methods used for the evaluation included:

- review of key project documents and reports;
- interviews in Havana with project staff, UNDP personnel, and representatives of key implementing institutions;
- field trips to 4 of the 5 Provinces of the project area and interviews with Provincial staff and stakeholders;
- team discussions with the Project Coordinating Unit;
- presentation of major conclusions to representatives of the Environmental Agency and the Ministry of Foreign Investment and Cooperation, and UNDP;
- write-up of rough drafts by the Team, compilation by the Team Leader, and circulation by e-mail for comment;
- interchange of ideas and suggested text among Team Members by e-mail;
- write-up of second draft by Team Leader and circulation by e-mail to Team Members, Project Coordination Unit, and UNDP personnel for review and comment.
- Interchange of ideas among Team Members, Project Coordination Unit, and UNDP personnel by e-mail; and,
- write-up of final draft by Team Leader and submission.

It should be noted that the Team Members agreed that the project was too complex to lend itself to the application of field questionnaires, and that open-ended field interviews would be preferable. Once in the field, it was noted that field staff are enthusiastic and proud of their achievements, and not comfortable identifying and discussing problems or setbacks. Thus, it became necessary to infer this information by eliciting comments on what still was needed or remained to be done in order for the project to be a success. The annual project reports were more analytic and provided good information, both positive and negative. Where possible, all presentations by project staff and interviews were conducted as a group. Only on one occasion was it necessary, because of time constraints, to divide the Team and conduct field visits and interviews separately. The evaluation report is structured around the detailed outline provided in the Terms of Reference for the mission.

3. THE PROJECT AND ITS DEVELOPMENT CONTEXT

The project encompasses the Sabana - Camagüey Ecosystem (SCE) occupying a strip of approximately 465 km along the central north zone of Cuba. It includes the northern watersheds of five provinces as well as an archipelago of off-shore keys, the adjacent marine shelf and the oceanic Exclusive Economic Zone. Its archipelago constitutes the largest system of keys in the Wider Caribbean and represents 60% of all the Cuban keys in number (2,515 keys). Mangrove swamps and seagrass beds are distributed in the keys and adjacent marine shelf, and along the mainland coast. The keys, beaches and coral reefs of the region are well known for their natural quality and beauty. The larger keys are populated with diverse plant formations.

This variety of habitat supports a great diversity of marine and terrestrial flora and fauna, and a high level of terrestrial endemism, which places this zone among the richest in biodiversity in Cuba and the Wider Caribbean. More than 708 species of terrestrial flora have been found in the area. Of these, 126 are endemic. Additionally, 958 species of terrestrial fauna, including 549 insects and 209 species of birds, have been noted. This part of Cuba provides much of the winter habitat for several species of migratory birds.

In recognition of this outstanding value, the important links this area has with other ecosystems in the broader region, and the long term effort that is required to establish and implement integrated coastal management, in 1992 the GoC developed a long-term intervention for conservation of biodiversity and promotion of sustainable development of the Sabana - Camagüey Ecosystem and sought assistance from the Global Environment Facility as one of several funding sources.

In December 1993, the 1st phase of GEF support to this long-term intervention was signed as Project CUB/92/G31, *Protecting Biodiversity and Establishing a Sustainable Development in the Sabana - Camagüey Ecosystem*. It was financed by the GEF, the GoC (Ministry of Science Technology and Environment, Ministry for Foreign Investment and Collaboration) and Environment Canada. This 1st phase project (1993-7) focused on the provision of information for identifying appropriate conservation measures and provided a Strategic Plan that serves as a foundation for ICM. Following successful completion of this phase, a second phase was signed in 1998 titled (CUB/98/G32) *Cuba: Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey Ecosystem* with support from GEF, GoC; various Canadian sources and UNDP Capacity 21 program.

The development objective for the 2nd phase project is to secure the protection of the biodiversity of the SCE. This phase had the following specific objectives

- Establish eight key protected areas for conservation, demonstration and potential replication.
- Consolidate the institutional co-ordination capacities for integrated, sustained and long-term coastal management in aspects related to biodiversity conservation.
- Educate and inform communities and key actors active in the SCE about the need for and importance of biodiversity conservation.
- Strengthen the awareness of, and capacity for, environmentally appropriate integrated coastal management among the institutions, sectors and main communities along the Sabana - Camagüey Ecosystem to reach sustainable development (Capacity 21)

The main stakeholders for this intervention are numerous and diverse. At the institutional level they include the 66 government institutions that have played a role in project implementation. However, in a more general sense, the project stakeholders include the whole population of the 5 Provinces within the project area, but most especially those who work in the fisheries, tourism, agriculture and education sectors.

The results expected of the project are:

- Eight key protected areas will have been established.
- The entire northern archipelago will have been zoned for biodiversity conservation.
- Technical staff in local and national institutions will have been trained in integrated coastal management, biodiversity valuation, biodiversity conservation and sustainable use, zoning, and biodiversity monitoring.
- Biodiversity values and themes will have been incorporated into provincial and national curricula.
- Four case studies will have been carried out aimed at identifying and applying appropriate incentives and regulatory mechanisms, as well as economic instruments aimed at long-term financial sustainability of conservation efforts in the SCE.
- Participatory planning for sustainable development will have been promoted by improving access to information and promoting capacity building that engender participatory and integrated planning.

4. FINDINGS AND CONCLUSIONS

4.1 Project Formulation

This Project was formulated in the context of a three phase series. The 1st phase project, “Protecting Biodiversity and Establishing Sustainable Development in the Sabana - Camagüey Ecosystem” provided support for the development of a strategic plan that was the basis for the second phase project, the object of the present evaluation. The design logic of this second phase assumed that in all probability a third phase would follow. This was an extremely important assumption, as it had a decisive impact on the logical flow of objectives, activities, and results.

Time has demonstrated the original Project design, in general, to be exceptionally robust. The objectives and expected outcomes remained constant throughout the 5 year Project implementation period, while activities and budgets evolved only slightly in response to the mid-term and tri-partite evaluations.

- **Conceptualization / design** **Overall rating: Satisfactory**

This was an ambitious, yet well-conceived project that links a wide range of issues and activities within a comprehensive and synergistic framework. The project's design reflects a learning process that has benefited from (i) the implementation of a 1st project phase (1993-1997) which established the scientific and institutional foundations for biodiversity conservation through integrated management of the SCE; (ii) the complementary strengths of GEF and Capacity 21 in biodiversity protection and capacity building for sustainable development; and (iii) the high professional caliber of the Cuban experts and institutions that participated in the design process, drawing from prior experiences in cross-sectoral coordination (eg. Watershed commissions), and environmental education and sustainable development planning (ie. the formulation of provincial Agenda 21's in 1993 following UNCED Conference). In particular, the early commitment by GEF to support a three-phase project over a long-term horizon, has allowed the design approach to evolve in an incremental manner - building capacities, consolidating processes and enhancing prospects for sustainability. During implementation it became clear that the project objectives and implementation strategy were both relevant and appropriate to the threats and opportunities identified and analyzed during the 1st phase.

The positive factors related to project concept and design far outweigh the weaknesses observed. On the positive side, the following factors stand out:

1. The logical framework was well thought out and has stood the test of time as an overall mechanism for structuring an effective and efficient project implementation process. It specifically targets the root causes and principal threats to biodiversity conservation detected during the 1st phase project, and structures the intervention strategy accordingly.

2. The definition of the project area, though extremely large, was realistic because it includes the entire Sabana - Camagüey ecosystem, a coherent land- and seascape unit for planning and management.

3. The project was structured to take advantage of Cuban culture and the Cuban way of doing things. During the detailed planning of activities that took place during project implementation, informed participation was encouraged at every turn, and cultural characteristics taken into account and used to create positive social dynamics.

4. The project design was built on the Cuban institutional approach to resource management at the national, provincial, and municipal levels. Project activities were fully integrated from the beginning into on-going programs of the participating institutions, thus avoiding the problems of a parallel project structure that then requires mainstreaming strategies.

5. Project activities related to environmental education, public awareness, and capacity building were highly relevant to the participants, because they were structured around the specific threats and root causes associated with terrestrial and marine biodiversity

conservation in the Project area. Specific events were tailored to the manifestation of those threats and root causes at the local level.

6. The project was not over-designed, nor over-planned. The design was flexible enough to permit adaptation to the often marked differences among the 5 Provinces of the Project area.

7. The incorporation of Capacity 21 (and hence the 4th objective) came at a late stage of the project's formulation, in response the co-financing requirement. Although Capacity 21 entered the design process after the GEF-supported components had already been drafted, this delayed arrival may have actually benefited project design by enabling C21 to address key gaps that were not considered under the first three objectives – for example, strengthening environmental monitoring capacities; incorporating environmental considerations within territorial/sectoral planning; promoting an ecosystems approach, and exposing decision-makers to sustainable development concepts - and in so doing, linking the different project components. The importance of Capacity 21's contribution to the design process – filling strategic gaps, proposing innovative capacity-building approaches and helping the various project elements coalesce as a "whole" - was emphasized to the evaluators on several occasions. In a similar manner, the 3rd objective's focus on environmental education and awareness is complementary to the other objectives.

As with all projects, this one had a few design flaws that are worth noting:

1. Perhaps the greatest flaw was the significant underestimation of the importance and level of effort, resources, and activities required to achieve sustainable finance of ICM activities in general, and the management of protected areas in particular, critical factors for the success and lasting impact of the Project.

2. It was agreed during the design phase that the Project would need to invest in the development of information systems. However, no agreement was reached on the source of funding for this element, so it was withdrawn from the Project. This handicapped the Project from the beginning, because the development of information systems for ICM has lagged for behind the inventorying/monitoring component, undermining opportunities for analysis, application, cross fertilization and synergy.

3. Project design did not take into account that ICM projects normally shift the distribution of the costs and benefits of natural resource exploitation among different stakeholders, and these shifts need to be tracked so that compensation measures or alternative incentive mechanisms can be put in place for those bearing the majority of the costs of realigning their activities in support of project activities.

Country ownership / driveness

This Project exhibits an extraordinary level of buy-in at every level due to the integration of activities into the on-going programs of the implementing institutions. In addition, the Project is a direct result of the National Biodiversity Strategy and the Strategy for the protection of Biodiversity and Sustainable Development of the Sabana - Camagüey Ecosystem that resulted from the 1st phase project. The design reflects a clear relationship with the sectoral plans for fisheries, tourism, environment, protected areas, and physical planning of the Provinces of the project area.

During interviews with stakeholders it became evident that there not only was a high level of buy-in at the institutional level, but also at the personal level. This is not only related to the resources provided by the Project, but also to the many chances offered for self-improvement through the training and education activities. Perhaps most startling was the degree to which the whole range of stakeholders interviewed identify with the Project's objectives and implementation strategy.

- **Stakeholder participation**

Overall Rating: Highly Satisfactory

Stakeholder participation at the institutional level was a result of the 1st phase project, and this established the technical environment, pattern of inter-institutional relationships, and favorable expectations that set the stage for the design of the 2nd phase project. This institutional stakeholder participation was a key element contributing to the excellence of project conceptualization and design. This process was aided considerably by the publication, dissemination, and analysis of the Strategy for "Protecting Biodiversity and Establishing Sustainable Development in the Sabana - Camagüey Ecosystem", the final output of the 1st-phase project.

> *"For the first time everyone has been integrated, everyone is sitting down at the same table together."*
>
> - Quotes from meetings with the Matanzas province project team

To a large extent, the participation of stakeholders outside the immediate project circle focused on appraising the draft project document. In this regard, CITMA and the project team systematically discussed the project draft with a wide range of sector ministries, environmental institutions and central/provincial government authorities – many of whom will soon have an active role in the Integrated Coastal Management Authority that is being organized. The incorporation of different stakeholders in project appraisal has not only enriched the final product, but has also provided opportunities to disseminate the project concepts of integrated ecosystems-based management and sustainability, encouraging the internalizing of these concepts and an early sense of "ownership". This ownership is also reflected in the substantial financial (local currency) and in-kind commitments made by the Cuban government, which in practice were fully met and sometimes surpassed.

Although community-based activities were planned under the 3rd and 4th project objectives, and there were consultations with municipal authorities and *Poder Popular* representatives, there is less indication of "grassroots" citizen involvement in the design of project activities during the formulation stage. This is attributed to the limited understanding by civil society towards the biodiversity and conservation-related issues that are the basis of the project. However, there has been considerable local input in the preparation of specific workplans as well as in the actual implementation of community-related initiatives - demonstration projects, environmental education, awareness-raising activities (the project's most illustrative example of participatory design, involving the preparation of training modules under Objective 4, is described in the section addressing "Implementation Approach"). As community stakeholders become increasingly familiar with the conservation/sustainable development issues raised by the project, it is expected they will be better placed to participate in the design of a third and final project phase – through workshops, consultations, *debates barriales* and existing *Poder Popular* mechanisms.

The formulation of the actual project document was largely conducted by the team that had implemented the 1st phase, with the hindsight of experience and a recently conducted external evaluation. The fourth objective was drafted afterwards by the project team with the support of a Capacity 21 international advisor; during his mission, this advisor also met with representatives from different government institutions (CITMA, the Physical Planning Institute/IPF , Fisheries and Tourism) and an environmental NGO, as well as with provincial CITMA staff at Cayo Coco. These meetings were extremely useful in guiding, adjusting and validating the design of the 4th objective.

Finally, it should be noted that community participation was not only lacking in the formulation phase, but the project design itself did not lay out a clear framework for citizen participation during implementation, especially resource users, outside of governmental institutions. Target groups, mechanisms to reach them, and specific activities were not identified. While some of this was carried out during project implementation, the project design was not specific enough in this area to encourage a coherent strategy. For example, dealing with the fishing and agricultural communities and people working in tourism is particularly complex with different groups having varied, and many times conflicting, interests and impacts. It is only through participatory processes that these varying perspectives can be understood and factored in to project implementation strategies.

- **Replication approach**

Replication is a natural consequence of the project's design. Each of the Provinces in the Project area has a south coast, as well as the north coast Sabana - Camagüey ecosystem. Those aspects of the Project that prove useful on the north coast are applied to the south coast, at least to the degree that human and financial resources allow. The same is true for the various sectors involved with the project. Approaches and lessons learned in the project area are relatively quickly applied to other areas of the country within each of the sectors.

> "*The style of the Sabana-Camagüey Project has arrived to stay; we will make sure that the progress we have achieved is not lost."*
>
> - Quote from meeting with the Matanzas province project team.

A number of specific project activities carry a strong replication potential – both in terms of design and implementation – and a number of project experiences and lessons are already being disseminated and adopted beyond the immediate project area. Specific examples include the (i) the holding of 5 workshops to disseminate project experiences to other provinces in Cuba; (ii) the use of the training modules and videos (Objective 4) at provincial universities and television stations, e.g. Villa Clara and Ciego de Avila; (iii) the incorporation of the training modules within the core government training program in Matanzas province; (iv) the growing use of cross-sectoral, "ecosystems-based" planning practices that were developed by the project within the Physical Planning Institute; (iv) the influence of the project on the petroleum sector in Matanzas province, where gas flare emissions are now being used to generate electricity and the state petroleum corporation is interested in collaborating with the project to restore degraded mangrove forests; (v) increased adoption of environmental standards, protective setbacks and improved landscaping practices by the hotel sector throughout the project area; (vi) the sharp reduction of trawling practices and illegal fishing practices along coastal areas, (vii) the voluntary participation of scuba-diver instructors in marine biodiversity monitoring, to be

expanded nation-wide in April 2005; and (viii) the recent adoption of sustainable tourism indicators, designed in Cuba with project support, by members of the Association of Caribbean States.

Although the planned Integrated Coastal Management Authority covering the five provinces is not yet functional, the combined coastal management practices developed thus far by the project – biodiversity inventorying and monitoring; management plans for Protected Areas; advisory support to hotel enterprises and fishing cooperatives on "best practices"; broadening the range of stakeholders engaged in conservation activities – carries a strong replication potential that will be tremendously enhanced once the Authority becomes fully operational during the 3rd project phase.

The 3rd and (in particular) 4th project objectives have generated excellent levels of enthusiasm and momentum, and are often considered the most innovative aspects of the project. As such, they have high replication value both for other coastal areas in Cuba and possibly the Caribbean region in general. Salient aspects include: (i) The approach used to design the training modules for decision-makers, involving over 300 specialists from different sectors and provinces that were organized into thematic groups; (ii) the gradual development of an integrated ecosystems-based approach tailored to the needs of provincial/municipal planners, decision-makers and sector authorities; (iii) the use of non-formal educational techniques (e.g. art exhibits, competitions, voluntary activities, dialogue with elders, community debates and traditional musical idioms such as *repentismo*); and (iv) the opportunity to develop a Cuban vision of Sustainable Development, linking environmental conservation, economic planning and regional development in a manner that is compatible with Cuba's political culture and governance system.

From a UNDP perspective, the project's design and institutional arrangements have enabled a mutually beneficial and productive GEF/Capacity 21 partnership - apparently the first of its kind on a global scale - that is based on their respective comparative advantages (e.g. biodiversity conservation, capacity building for sustainable development) which in itself carries a high replicability potential within UNDP.

- **Other aspects**

1. UNDP has been a key partner for the Government of Cuba within the context of an unfavorable international environment. The fact the UNDP deals with all sectors has also made it an ideal partner for a cross-sectoral ICM project.

2. Further funding for publications and communications material under objectives 3 and 4 would have been desirable. However, there is definite appreciation of the fact that over 40% of the approved project budget was earmarked for equipment, (in comparison, equipment allocations in other GEF and C21 projects average 10-15% of the total budget), this was granted due to the external political and economic constraints affecting Cuba.

3. Finally, it should be remembered that support for the mitigation of environmental threats was mot included in the 2nd phase project because they did not meet GEF funding requirements (basal vs. Incremental costs). This is an element that should perhaps be considered in a 3rd phase project for counterpart funding.

4.2 Project implementation

Overall Rating: Highly Satisfactory

- **Implementation approach**

The project in reality has had several implementation approaches, responding to the needs of its research, conservation and capacity building components. However, the general sequence seems one of increasing diversification over the project phases, building from a strong scientific focus on inventorying and monitoring towards broader management and sustainable development issues with different sectors. This has enabled the project team (and CITMA as well) to widen their scope of collaboration, opening new doors and giving more attention to the social and economic aspects of ICM.

Capacity building and learning are closely linked to project planning and implementation. The project's design has considerable built-in flexibility and has often played a catalytic, facilitative role (as opposed to prescriptive). This has encouraged national initiative, creativity and early ownership: Provinces were given resources to develop their own environmental education strategies; trainees are evaluated according to the extent they apply the training received in their jobs. Best practices have been documented and are being disseminated. A Cuban approach to coastal conservation and sustainable development (which also draws from external experiences) is being developed. There is also a high level of internalization; several persons met during the mission did not feel a strong distinction between the project and their own work, noting that the former has become part of the "modus operandi."

> *"We have always had consultative forums, but the one brought by this project has achieved the greatest integration and impact in our territory ….it allows us to carry the process to the implementation stage."*
>
> - Quote from meeting with the Cayo Coco project team (Ciego de Avila province).

Cross-sector linkages, multi-stakeholder collaboration and integration are key in promoting an "ecosystems-based" approach to coastal management, and are therefore central to the implementation strategy. This is recognized as one of the project's most significant and innovative contributions. Several participants have highlighted that while other development and conservation initiatives often include broad consultations at the design stage, the resulting plans are usually executed by individual sectors with limited coordination or feedback. Under the SCE project, multi-sector dynamics are carried to the implementation stage as well - enhancing impacts and sustainability through improved coordination and synergy. Specific examples include the collaboration of provincial CITMA staff with hotel resorts, fishing cooperatives and the state petroleum enterprise in Matanzas, as well as the participation of scuba-diving instructors linked to the tourism sector in biodiversity monitoring activities - in addition to the integrated and highly participatory approach used to design and implement capacity building activities under the 3rd and 4th objectives.

Capacity building activities conducted under the 3rd and 4th objectives were additionally innovative in their use of non-formal educational methods, particularly in the case of environmental education and awareness-raising directed at coastal communities. The organizing of art exhibits, essay competitions, video presentations, musical events and volunteer campaigns (in which tourists often participated side by side with local residents), as well as the documentation of cultural traditions and testimonies of the elderly, are evidence of the project's success in generating creative and user-friendly approaches.

(I) Logical framework

The logical framework has been used as the basic structure for the project in terms of planning, operational activities, and evaluation. There is a coordinator for each Project objective at the level of the SCE, and in each Province. The annual evaluations and mid-term evaluation resulted in changes in specific activities and budgets, but not in objectives or results. On the negative side, some of the indicators are vague and difficult to verify.

(ii) Adaptive management

At the most general level of project objectives and results, it could be argued the project has not reacted decisively enough to deal with the serious financial and institutional sustainability issues clearly pointed out by the Mid-Term Review. On the other hand, it can also be argued that these are such large scale issues that they could only be adequately addressed through a 3rd phase project, and that it did not make sense to sacrifice some of the scheduled outputs of the 2nd phase project in order to only partially address the relatively complex sustainability issues. The other recommendations of the mid-term evaluation have all been implemented.

As pointed out in the section on project design, one strong aspect of the project is the recognition that the context in each province and municipality is different, and that within the general project framework, activities should be adapted to fit local circumstances. Another structural element that encourages adaptability is the system of annual contracts that are used with all of the implementing institutions. At the end of each contract, independent evaluators make judgments as to whether the contractee has completed the work as contracted, the quality of the work, whether the contract should be extended for another year, and if so, what changes in the work program need to be introduced. This system has encouraged a relatively rigorous and regular approach to adaptive management.

(iii) Information technologies

Information technologies has been used regularly for communications, reporting, publications, training, monitoring, and data bases (including a geographic information system), project management, and for using remote sensing images. Unfortunately, insufficient resources have been made available to enable the use of information technologies for providing access to the project data base by the project stakeholders. This is clearly a gap that needs to be taken into account in the design of future projects.

(iv) Operational relationships

The operational relationships among the project stakeholders appear to be extensive, regular, and fruitful. Particularly noteworthy is the degree to which relevant institutions at the national, provincial, municipal, and community levels have been brought together for training and education, and to participate in the search for solutions to specific negative impacts on the biodiversity of the SCE. This bringing together of specialists from a spectrum of institutions for training on particular technical subjects has led to unity of criteria, approaches, methods, and understandings, thereby facilitating cooperation. The annual reports indicate that this was not always so, and that current relationships are the product of sustained efforts over time, a fact that is recognized in the section on lessons

learned. This cooperation network has led to numerous additional project results that were not part of the original design.

(v) Technical capacities

The technical capacities associated with the project have been very high in science, education, and capacity-building; average with respect to the management of natural resources; and deficient with respect to sustainable finance. As with many countries in Latin America, there is no professional specialization or training in landscape architecture, and thus this capacity has to be filled by consultants. Because of the many consultants from other countries who have participated in the project, and the large number of study tours that have been financed by the Project, there is a good knowledge of practices in other countries, especially other Caribbean islands. The project has contributed to the training of the staff of a large number of relevant institutions working in the project area, thus increasing substantially their levels of knowledge and experience, and enabling their informed participation in project deliberations and activities. It is particularly interesting to see that decision-makers, a group normally hard to reach, have successfully been engaged in the training process at all levels. One of the many benefits of this general increase in technical capacities in the project area is that there is now a much higher level of informed participation in decisions and activities.

- **Monitoring and evaluation**

The system of annual contracts, reports and audits; regular meetings with UNDP staff; the tri-partite meetings; and the mid-term evaluation constitute a varied and rigorous system for monitoring and evaluation. There has been particularly outstanding work accomplished on developing verifiable impact indicators to provide feedback to the project process. The results of the evaluations of the annual contracts with implementing institutions, and the recommendations of the annual project reports, the tripartite meetings, and the mid-term evaluation have resulted in changes in activities and priorities. In fact, many of the deficiencies noted through the various monitoring and evaluation instruments have been corrected. These include the raising of the hierarchy of the National Center for Protected Areas within the Ministry of Science, Technology, and the Environment; and changes in the regulations for fisheries, and the construction of tourism infrastructure.

Despite the scale and complexity of the project, provisions have been made for the internal monitoring of activities according to the needs of specific objectives. For example, the CITMA staff in Cayo Coco monitor the impacts of tourism and the hotel industry on the coastal ecosystem – and more important, encourage self-monitoring by hotels (reflected in improved landscape architecture, beach conservation and waste management) and fishing cooperatives (resulting in the reduction of illegal fishing and a legal decision to phase out trawling); *Reconocimiento Ambiental* (environmental excellence) awards are granted on an annual basis in recognition of environmental efforts. The voluntary participation of scuba diving instructors to assist CITMA in marine biodiversity monitoring is particularly commendable; and will be formally expanded on a national scale in April 2005 to include almost 1,000 diving sites across Cuba. Baseline studies on stakeholder perceptions were conducted under Objective 4 to monitor changes in attitude deriving from the training modules, and internal evaluations of the modules have been conducted by several provincial teams. The monitoring and evaluation approach adopted for Objective 4 additionally includes the evaluation of provincial training plans, structured interviews with key participants and focus groups (trainers, the provincial project team) and a

questionnaire distributed to all trainees. Prior to the termination of the current project phase, each province will prepare an evaluation report encompassing all project activities conducted within its jurisdiction; and transmit them to the central project team.

One aspect of monitoring and evaluation that has not received sufficient attention during project implementation is the distribution of costs and benefits of the SCE project. As in any ICM or similar project of this nature, certain parties (often traditional power holders) will assume a disproportionate share of the costs, and the benefits will be shared more broadly; in this case, to other sectors (e.g., tourism, protected areas) and stakeholders (e.g., coastal communities, general public). In the first two phases of the SCE project, it is clear that the Ministry of Fisheries and their fishing sector clients, are absorbing the majority of the costs (e.g., through the elimination of trawling and traditional fishing techniques, traditional fishing grounds restricted in PAs). While there is a strong Cuban tradition of institutional compliance with central directives in general, and in this project specifically, project proponents must remain conscious of this imbalance among the distribution of costs and benefits and the challenges this may present to long-term collaboration and compliance with project objectives. Careful consideration must be given to balancing an equitable distribution of costs and benefits, or compensating, financially or through other incentives, those on the cost side of the equation.

- **Stakeholder participation**

In general terms, the project team has excelled in promoting stakeholder participation and ownership. An excellent case study is the approach used to prepare and implement the 14 training modules under Objective 4, which reached over 2,000 persons and continues to expand. During the first 18 months of implementation, this objective had lagged far behind the other three, until a focal point was designated at CITMA to move the process forward. At this time, a mission by the international Capacity 21 advisor provided the focal point and her team with comprehensive information and case studies on local sustainable development initiatives applied in other countries, drawn from sources such as ICLEI, IIED, and Capacity 21 among others. A series of preparatory workshops were held with a group of inter-sectoral experts to assess needs and priority issues to be addressed by the training modules, as well as determine the institutional framework, methodology and implementation arrangements. During these workshops it was found that capacity building for decision-makers on sustainable development and ecosystems-based planning was particularly weak. A comprehensive "Concept Document" was subsequently drafted with the participation of representatives from 18 institutions – analyzing strengths/weaknesses for key sectors and civil society, as well as respective "entry points" for sustainable development, identifying priority target groups (Presidents and Vice-Presidents in provincial and municipal government; sector and territorial delegates; enterprise and labor union managers); outlining training content and methodologies, monitoring and evaluation arrangements etc. The draft Concept Document was discussed and adjusted at a series of provincial workshops, followed by a national encounter at which the central and provincial participants grouped the 100+ topics that had been identified at the previous workshops, selecting 14 priority themes for the training modules through a weighted matrix exercise. The implementation strategy for the training modules in each province was determined by the corresponding inter-sectoral provincial

> *"Several persons came up to me [during the workshops] and said that this was the most participatory process they had ever been involved in."*
>
> - Herminia Serrano, CITMA coordinator for Objective 4

team, with the guidance of a methodological manual developed by pedagogical specialists in Havana. The level and scale of participation during this process – involving approximately 300 persons from central and provincial government, different economic sectors, academia and NGOs - were instrumental not only to the quality and relevance of the training modules, but also in bonding the participants and generating a "team dynamic" based on shared commitment and a strong sense of ownership. The training modules have been implemented in the five provinces, reaching more than 2,000 managers and decision-makers, and are now being evaluated; however, the project team has already received several requests from provincial authorities for further support to extend the training to technical staff within their departments and sectors.

Under the other project objectives, the evaluation mission noted high levels of stakeholder mobilization for the implementation of activities involving their particular sectors or localities. In such cases, participation was focused more on "how, when and where" issues related to implementation delivery: Communities adjacent to the Rio Máximo protected area help control invasive species such as catfish and *marabu* vegetation, which they are allowed to harvest for consumption. Other community residents are helping to monitor the distribution of crocodile nesting sites, for which they receive remuneration. Fishing cooperatives have the responsibility to control trawling and illegal fishing in conservation areas, with considerable success. In Cayo Coco and elsewhere, local residents, hotel staff and tourist volunteers have been organized to assist beach-cleaning activities. One hundred and nineteen scuba-diving instructors from the tourism sector are supporting marine biodiversity monitoring – a voluntary initiative promoted by the project - will be expanded on a national scale in April 2005 to almost 1,000 diving sites along Cuba's coastline. Environmental education activities under the 3rd objective have stimulated the participation of artists, musicians, students and communities at large - through exhibitions, festivals and competitions such as *Biodiversidad en sus Manos* (Matanzas province) and *Natura* (Caibarién), which have become annual events. At the *barrio-debates*, (neighborhood debates) CITMA and the local *Poder Popular* council hold open community meetings to discuss environmental problems and explore solutions; although *barrio-debates* have been practiced in Cuba for some time, the project has been instrumental in introducing an environmental dimension to such meetings.

> *"One of the positive aspects is the high degree of flexibility that was given to each province."*
>
> - A project participant from Rio Máximo (Camagüey province)

(i) Production and dissemination of information

An enormous amount of project information, and training and education materials has been produced and widely distributed. In fact, there have been so many requests for educational and training materials, many times from outside the project areas that these have had to be reprinted in some cases. One of the positive features of the educational materials is that indicators have been developed to determine their effectiveness, and in some cases, materials have been rewritten to compensate for the deficiencies that have been identified. The downside to information dissemination has been the inability to make the project's huge amount of information available on the internet for downloading.

(ii) Participation of local resource users and NGOs

While the participation of government institutions and enterprises at the national, provincial, and municipal levels has been widespread, there has been relatively little participation of local resource users and NGOs in the project. It should be noted, however, that there are no communities on the keys, and there are few NGOs in the project area. Early on in the project, priority was given to fisheries resources, but there is little evidence that fishermen themselves had much participation. Later, the focus turned to the development of tourism infrastructure, and in this case there was a greater level of interaction regarding design criteria and regulations, and in the development of a strategic plan for tourism.

(iii) Partnerships and collaborative relationships

The Project is structured around partnerships and collaborative relationships with the 66 major governmental institutions that implement the project. A large number of these institutions have adopted one or more of the Project's methods and materials such as the participatory, intersectoral approach to problem identification and analysis, use of indicators to provide feedback, internalization of social costs, use of annual contracts for program implementation, environmental education and training materials, technical manuals, etc. The participation of project personnel in key international events, the use of consultants from a number of countries, and study trips to other countries have assisted in identifying best practices from within the Caribbean and beyond.

The omission of one important potential partner stands out. The Latin American and Caribbean Network of Environmental Funds (RedLAC for its initials in Spanish) was encouraged and supported by UNDP for many years. Through a partnership with RedLAC, the project could gain access to an enormous amount of expertise and practical experience in the sustainable finance of biodiversity conservation. While no contact was made with RedLAC or any of its member institutions during the 1st or 2nd phases of the project, it is highly recommended for the 3rd phase.

(iv) Involvement of governmental institutions

Government institutions implement all aspects of the Project, and thus are totally involved at the national, provincial, and municipal levels. It should be noted as well that the Government financial contribution to the Project, through its many institutions, is more than 4 times the contribution of GEF, and 32 times the contribution of Capacity 21. This is a good indicator of the extent to which governmental institutions are involved and committed to the process.

- **Financial planning**

The project team is highly appreciative towards GEF, UNDP and Capacity 21 for the flexibility provided in budget management. All were supportive of the project's need to occasionally adjust the budget and re-allocate funds between budget lines. Budget revisions were approved without any change to the total budget. Provincial work plans and budgets are prepared by the local team. This flexibility is very important given the scale of GEF funding involved.

The actual project cost for the GEF, Canada, and GoC co-finance has been tracked by objective as follows:

Description	Obj. 1 (%)	Obj. 2 (%)	Obj.3 (%)	Planned Consultants	Actual Consultants
Project Personnel	25	67	8	57	72
Subcontracts	-	100	-		
Training	20	65	15	70	88
Equipment	45	53	2		
Miscellaneous	10	15	75		
Total	20	60	20	127	160

It is interesting to note that while Project Objective #2 has received 60% of the funding, it has not resulted in the establishment of the ICM Authority. This apparent inconsistency is discussed in more detail in Section 4.3.

Project objective 4 was financed by Capacity 21 and GoC co-finance. It was originally planned that Capacity 21 would provide US$ 471,000 and Cuba US$ 178,000. The actual disbursement corresponded to 100% of the Capacity 21 financing, and 245% of the Cuban financing (an increase to US$ 436,000).

The cost effectiveness of project investment has been extraordinary! The efforts of CITMA and the project team to maximize cost-effectiveness in project implementation are commendable and merit recognition. None of the US$ 4.3 million provided by GEF and Capacity 21 are used to pay salaries of staff; who are remunerated in Cuban pesos by their respective institutions. Up to July, 2004, the disbursement ratio (% of actual versus planned expenditures) has been 97.7%. At the same time, every effort has been made to stretch funds by asking consultants to take lower salaries, and by cutting perdiems. For example, as shown in the table above, the project planned for 127 consultants, but was able to contract 160 because of the concessionary rates that were charged. Project personnel agreed to cut their local perdiem rates in half, and to cut back international perdiem rates from the higher UNDP rates to the lower rates of the GoC. The result is that considerable savings have been achieved, while at the same time carrying out project activities as planned. It is recommended that, wherever possible, these savings be used to help bridge the gap that will occur between the 2nd and 3rd phases of the project.

> *"What we have used, we have used well."*
>
> - A project participant from Rio Máximo (Camagüey province)

In the first years of the project, there were significant disbursement problems, especially in relation to the funding from Capacity 21. These problems were solved in 2001, however, with the designation of a Project Administrator. Since then, disbursements have closely followed planned expenditures. The levels of co-financing for the project are presented below:

Cofinancing - GEF and Canadian sources

Co financing (Type/Source)	IA own Financing (mill US$)		Government (mill US$)		Total (mill US$)		Total Disbursement (mill US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
– Grants	3,889	3,889	15,090	15,090	18,979	18,979	18,979	18,877
– In-kind support	0,300	0,300			0,300	0,300	0,300	0,300
TOTALS	4,189	4,189	15,090	15,090	18,979	18,979	18,979	18,877

Cofinancing Capacity 21

Co financing (Type/Source)	IA own Financing (mill US$)		Government (mill US$)		Total (mill US$)		Total Disbursement (mill US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
– Grants	0,471	0,471	0,178	0,436	0,649	0,907	0,649	0,856
TOTALS	0,471	0,471	0,178	0,436	0,649	0,907	0,649	0,856

Cofinancing commitments have been fully honored, and in some cases surpassed original commitments. For example, the contribution of the GoC for Capacity 21 increased almost 2.5 times. On the other hand, it needs to be noted that, even though much effort was put into generating co-financing for the information systems component of the project, no such co-financing was ever raised, and the project outputs have suffered accordingly. This is a lesson that is relevant for design of the 3rd phase. Extra effort will no doubt be needed to assure that appropriate levels of co-financing are secured for this final phase, so that all project elements are funded at the required levels. A positive fundraising experience at the municipal level in Spain suggests that potential counterpart funding might be sought from other Spanish municipalities or regions with historic ties to Cuba.

Indications are that the incremental cost concept has been rigorously applied, even perhaps over-rigorously applied in the case of funding for information systems. The need for bridging funding between the 2nd and 3rd phases of the Project is a concern, and the project team has sought ways to stretch the funding available for 2004 to cover basic costs for 2005. There is no doubt that this bridging funding is needed to develop the 3rd phase project, maintain project momentum, and especially to cover the costs of equipment maintenance and repair. While stretching the 2004 budget into 2005 may present bureaucratic difficulties, there is no doubt that the request is justified in operational terms. Thus, it is recommended that every effort be made by UNDP and the GoC to find ways to facilitate this request.

Also deserving recognition is the quantity and quality of in-kind support provided by the Cuban government, institutions and people – at central, provincial, municipal and community levels. The technical caliber, organization and dedication of project staff and

other participants are impressive and clearly instrumental to the project's success. Some US$ 81,000 in cash and in-kind resources have been leveraged to complement project activities. The largest is a US$ 50,000 grant from the Balearic Island Municipality of Spain for the construction of a monitoring station in Camagüey, and the rest are in-kind contributions from Cuban governmental institutions, the University of the West Indies (Jamaica), and Environmental Defense (U.S. NGO).

- **Execution and implementation modalities**

The project team is highly appreciative of the support and efficiency of GEF, UNDP and Capacity 21. Monitoring and evaluation schedules appear to have been met and Tripartite Reviews were held annually; there have also been occasional technical "backstopping" missions. In balance, the execution and implementation modalities are appropriate and have been applied effectively.

The work of the Project Coordinating Unit has been extraordinary in terms of dedication, enthusiasm, technical capacity, innovation and leadership, and this was recognized during field interviews with stakeholders. Many of the Project ideas and modalities have been copied by the different implementing institutions (see section on replication).

While the technical capacities of the Project Coordinating Unit have been well suited to the requirements of the 2nd phase project, it should be noted that adjustments will be needed for the 3rd phase project. The existing scientific expertise will need to be complemented by expertise in sustainable finance and natural resource management.

The Coordinating Unit has worked closely with UNDP in the selection, recruitment, and assignment of experts, consultants, and national counterpart staff. The fact that there have been 3 different Project Directors during the 2nd phase does not seem to have caused problems of continuity since the Scientific Advisers for Terrestrial and Marine Biodiversity, who function as assistant project directors, have remained constant throughout.

Until the Project Administrator was designated in 2001, there were significant delays in disbursements which resulted in delays in receiving project inputs, especially with respect to the Capacity 21 component (project objective 4). Since then, the quantity, quality and timeliness of inputs has generally not been a problem, and working relations with UNDP and the GoC have usually been smooth. It should be noted, however, that the 6 month delay in carrying out the Mid-Term Evaluation resulted in a 6 month delay in raising concerns about the financial and institutional sustainability of the Project, and in the implementation of corrective measures.

The system of annual contracts with executing institutions has been effective in assuring timely implementation of activities, external evaluation of annual results, and the use of corrective measures to improve performance when necessary. The two themes which have suffered significant delays, legal establishment of 4 protected areas and implementation of the ICM Authority, require decisions at the highest levels of government. In these instances, it appears that the Coordinating Unit has been powerless to speed the process. To compensate for these legal vacuums, the Project has moved ahead with activities related to both the protected areas and the ICM Authority. For example, conservation plans have been developed for the 4 yet undeclared protected areas, and personnel assigned to them for basic protection activities. Alternatives for the structuring of the ICM Authority have been analyzed and options put forward. However, even with

these measures being put into place to compensate for the lack of legal certainty, the delays in decision-making have impacted negatively on the timely attainment of project objectives. In fact, the delay in implementing the ICM Authority puts into question the institutional sustainability of the project over the long run, even though much progress has been achieved in inter-institutional and inter-sectoral coordination.

4.3 Results

Overall Rating = Highly Satisfactory

- **Attainment of outcomes/achievement of objectives**

The objectives and outcomes of this project have largely been met, and in some cases performance and output have exceeded expectations. This is an extraordinary achievement in any context because the standards established in the project design are ambitious and demanding. It is particularly laudable because of the complexities and high level of participation in the project, common characteristics of the ICM approach to biodiversity conservation.

Most people consider the main project contributions to be (i) raising the scientific knowledge of the SCE coastal ecosystem, which provides a foundation for policies and programs; (ii) developing the capacity of decision-makers to understand and apply environmental and sustainable development principles; .and (iii) promoting a cross-sector, ecosystem-based approach to coastal management. Many respondents also highlight education and awareness raising as the most valuable benefit they have received from the project; generating a "conservation culture" according to some.

The evidence gathered by the Evaluation Team leads us to rate the attainment of the project objective and outcomes as follows (HS = Highly Satisfactory, and S = Satisfactory on a 4 point scale) :

- Project Objective – conservation of SCE biodiversity HS
- Outcome 1 - 8 key protected areas established and functioning S
- Outcome 2 – institutional capacities for ICM HS
- Outcome 3 – communities and key actors understand need and importance of biodiversity conservation HS
- Outcome 4 – awareness and capacity for ICM strengthened among institutions, sectors, and communities HS

These ratings coincide with the ratings provided by the Project Coordination Unit in their 2004 Annual Report, except with respect to the Project Objective. The Project Coordination Unit has rated the attainment of the Project Objective as satisfactory, while the Evaluation Team is inclined to rate it as **highly satisfactory**. This is because the difficulties related to Outcome 1 have been largely mitigated, and they should not have a negative effect on biodiversity conservation, at least in the short term.

(i) Legislative and regulatory framework

The 1st and 2nd phase projects have together played a central role in providing the concepts, relevant field experience, and information for:

- updating the National Environmental Strategy and Biodiversity Strategy and Action Plan;

- developing specific laws and decrees such as the Framework Law on the Environment and Protected Areas Law;
- emitting specific decrees such as the Fishing and Fishery Inspection Decree, Coastal Zone Management Decree-Law, and Regional and Urban Planning Decree;
- formulating resolutions on the Management of Special Sustainable Development Regions, Access to Biodiversity Resources, and Environmental Impact Assessment;
- establishing the National System for Environmental Recognition;
- creating 35 new protected areas (24 of which are Fishing Reserves); and,
- regulating marine fisheries and tourism development to conserve and sustainably use biodiversity.

In the case of tourism infrastructure, once the new regulations were instituted, the project assisted in developing mitigation measures to correct past mistakes, especially with respect to the Cayo Coco Causeway which, because of the lack of bridges and culverts was hampering the flow of water within the bay, causing the death of mangroves and sea grass beds, and a spectacular decline in fisheries. In Cayo Coco, because of the new regulations, recent hotel developments now have lower construction densities, visual and distance setbacks from the beach and are landscaped with a greater percentage of native plants (70%). The measurement and dissemination of beach erosion rates has caused hotels to adapt mechanical cleaning methods and create conservation terraces with recycled sand.

This complex of laws, decrees, resolutions, and regulations; and the establishment of protected areas and the national system for environmental recognition have done much to strengthen the enabling environment for biodiversity conservation in the SCE.

(ii) Environmental education and awareness; and
(v) Capacity building

While there has been an heroic effort on the part of project personnel to report on environment education and awareness (EE) (outcome 3), and capacity building (C21) (outcome 4) separately, the Evaluation Team has found it impossible in practical terms to separate the two objectives in terms of inputs, outputs, or impacts.

Taken together, the activities under these two objectives have had an enormous impact on project results, and because of the Capacity 21 contribution, much more was achieved than could have possibly been achieved by the GEF Project alone. The achievements of the environmental education and capacity building components very much complement the advances made with respect to the legal and regulatory framework. Together, they have succeeded in developing a propitious enabling environment for biodiversity conservation in the SCE. Some of the more positive factors of the approach taken were the targeting of a broad range of groups at all levels, the focus on problems identified by stakeholders, identification of specific attitudes that require change,

"The Capacity 21 objective has been great…the relevance of the modules, the language and the manner in which they were implemented has generated so much receptivity. People feel empowered in the discussions, feel they have a voice and a vote."

- Quote from meeting with Caibarién project team (Villa Clara province)

testing and evaluation of courses and materials, and the introduction of revisions based on these evaluations.

It is especially impressive to note the degree to which decision-makers, a group often difficult to reach, have been actively involved. Provincial and municipal managers from government, key economic sectors and enterprises have been sensitized by the project's ecosystemic approach to coastal management, and now "look beyond their particular territory or sector" according to one respondent. More than 2,000 decision-makers have participated in the 14 training modules developed under Objective 4 and are beginning to apply the learning. There is growing demand for additional training for technical staff in government and sector enterprises, universities, local communities and the Provincial Administrative Councils (CAPs). Allocations for environmental conservation and compliance within the annual provincial budget were raised in Villa Clara and Ciego de Avila, the latter from 874,000 to 5 million Cuban pesos (US$ 190,000 at the official exchange rate).

Provincial strategies for environmental education have been designed and implemented in a number of coastal communities under Objective 3. In addition to raising awareness and encouraging voluntary activities such as beach cleanups (Cayo Coco, Varadero), *malecón* rehabilitation (Caibarién), cultural/artistic events (Caibarién, Matanzas) and environmental vigilance (in all provinces), environmental education has also contributed towards significant reductions in illegal fishing, trawling practices and water contamination caused by fish farming.

In Ciego de Avila province, 172 decision-makers (30% of the total) from different government departments and sectors were trained with the modules; 97% completed the courses, 100% gave positive evaluations and 15% would have desired more time.

The extent of EE and C21 activities is truly impressive. For example, the project has:

- held 128 workshops;
- contracted 72 consultants;
- hired 88 trainers;
- financed 102 fellowships or attendance at international training courses;
- supported 75 participants to international meetings, symposia, or congresses;
- facilitated 23 international study trips; and,
- provided material for 4 masters theses, 2 in marine biology and 2 in ICM.

In addition, the project has supported the development and distribution of the following:

- 25 brochures
- 4 periodic bulletins
- 11 posters
- 1 set of postcards
- 6 series of radio programs
- 1 TV program series
- 3 video documentaries
- 2 sets of radio and TV spots
- 4 community festivals
- 14 teaching module sets for educators taught to 1590 students
- 1 arts program

- 1 theater works
- 2 species catalogues
- 10 community debates
- 1 CD for children
- 5 traveling exhibitions

While the full impacts of these outputs are difficult to trace quantitatively, the following selected indicators show extremely positive results:

- Since the beginning of the project, the populations of species that have been monitored have either remained constant or have increased, some spectacularly.
- The extent or coverage of all marine habitats of special concern, that is coral reefs, mangroves and sea grass beds, have increased in the project area.
- Reduction of land-based marine pollution by 10.2% from 1999 to 2002, and a reduction of organic loading of the marine ecosystem by 23.3% from 1999 to 2003.
- 5 detailed and 9 strategic tourism plans were developed with joint work among scientists, architects, and planners.
- The creation of 49 protected areas in the project area, though only 33 were originally proposed.
- Environmental rating system in use for hotels based on indicators of sustainability.
- Official ban on set net and bottom trawling fishing practices.
- Implementation of EIAs that has resulted in the use of cleaner technologies, environmentally friendly construction techniques, better maintenance of wastewater treatment plants and oxidation ponds, recycling, and irrigation with treated waters, among others.
- Volunteer program with dive tour operators to monitor reef conditions.
- Movement of the Cayo Coco airport from an environmentally sensitive area to a more appropriate location.

These are but a few of many positive indicators. In addition, field interviews by the Evaluation Team confirmed both the quality and quantity of the environmental education and capacity building components.

(iii) Quantity and quality of information

An enormous amount of information has been collected by the Project. For example, the GIS includes some 150 thematic maps, the 8 monitoring stations are generating data on a regular basis, and some 95 technical reports and 254 documents have been generated. Quick reviews of selected documents indicate that the quality of this information is high, and given the amount of effort that has gone into identifying and verifying indicators, it is probable that the monitoring information is reliable.

The problems related to the project's information systems do not have to do with either the quantity or quality of the information, but with the analysis, flow, and use of this information. Because of resource restrictions, there is a long delay before the information that is generated is uploaded into the information system, and even when it is, it is not easily accessible by the many institutions that participate in the project and that need to analyze and use the information. This is a major bottleneck that requires attention during the 3rd phase.

(iv) Creation and strengthening of monitoring stations and protected area administrations

> *" We made a jump from education and understanding to having the capacity to measure our own progress."*
>
> - The Director of Development for the Ministry of Tourism (MINTUR)

The monitoring program, which is supported by more than 80 staff members, is one of the great successes of this project. Though construction of one of the monitoring stations was delayed because of hurricane damage, adequate interim arrangements were made so the station could operate. Though there is always an interest in increased levels and diversity of monitoring, it would appear that for the present the priority should go to collating, analyzing, making readily available, and using the data which is currently gathered. It is noted, however, that the operation of the monitoring stations is an expensive undertaking requiring sophisticated equipment and high operational costs. It is questionable, therefore, the degree to which these stations could continue to operate without project resources.

The establishment, management, and sustainable finance of the 8 protected areas originally targeted by the project has been the only element of the project that has not achieved the results outlined in the project document. Only 4 of the targeted protected areas have been legally established to date, although work has continued on the 4 undeclared areas as if they were already created. Management and operation plans have been developed and are being implemented in the 4 legally established areas by trained staff. In the 4 undeclared areas, basic conservation plans are in place, and trained staff is implementing basic protection activities in 3 of the areas. The project has supported some pilot income-generating initiatives that help finance the management of Protected Areas while benefiting community residents. A farm for the rehabilitation and sale of abandoned flamingos in the Rio Máximo reserve (Camagüey province) has created 11 jobs and generates around US$ 250,000 annually; the profits cover 70% of recurrent foreign currency expenditures for the reserve. Area residents also make additional income by monitoring crocodile nesting sites, and benefit from financial incentives introduced by the government to discourage trawling, over-fishing and other damaging practices. As a result, some fishermen are now making US$ 2,000 to 3,000 year - a considerable improvement over their prior income which was received entirely in Cuban pesos. On the other hand, none of the protected areas have sustainable finance plans, and the development of ecotourism products for sale to the tourism industry, one of the most immediate potentials for sustainable finance, has not moved ahead as quickly as expected. Thus, most of the protected areas are a long way from attaining financial sustainability.

- **<u>Sustainability</u>**

The concerns regarding the financial and institutional sustainability of the project articulated in the mid-term evaluation remain. Financial sustainability and cost recovery for the operation of the ICM Authority and protected areas are of particular concern. The original project design was deficient in this regard, and the lack of emphasis, strategic thinking, and resources assigned to this component in the beginning has been exacerbated by the lack of expertise for dealing with the subject during project implementation. Since the Mid-Term Evaluation, more attention has been given to this issue, and a workshop was recently held to review case studies from other countries of

Latin America and the Caribbean. There have also been some encouraging advances in income-producing projects, such as flamingo rehabilitation and sale in Río Máximo, and a proposal for sponge production. However, much work remains to design economic and policy instruments for environmental evaluation and the payment for environmental services, the development of "eco-entrepreneurial" capacities", and the establishment of institutional mechanisms to support long-term financial sustainability, using the full spectrum of potentially available mechanisms. It is particularly noteworthy that little use has been made to date of the extensive practical experience that has been gained throughout the region by environmental and protected area funds, some of which are now more than 10 years old. UNDP has played a leading role in encouraging the establishment and support of the Latin American Network of Environmental Funds (RedLAC for its initials in Spanish), and the ample experience of this Network should be tapped.

The project's emphasis on capacity-building for different sectors and decision-making levels, as well as its support for biodiversity inventory, and the monitoring of ecosystems and processes, have enabled CITMA and key SCE stakeholders to achieve technical self-sufficiency and sustainability in many ICM functions. This is particularly true for the scientific and biodiversity protection components, which are managed by highly competent and technically specialized personnel in Havana and the five provinces.

The now internationally-accepted process for ICM development and implementation (see Olsen, 2003) includes five basic, although not necessarily consecutive, steps. These include: (i) issue identification and assessment; (ii) preparation of the Plan; (iii) formal adoption and funding; (iv) implementation; and (v) self-assessment and external evaluation. It is clear that the SCE project, nearing the conclusion of its 2nd Phase, has achieved significant progress in all five categories, but with some deficiencies in parts of the project cycle.

At this stage however, ICM is not sustainable as a *system*. Although impressive progress has been made in promoting an ecosystem-based approach within a traditionally centralized and sector-driven development planning framework, there are continuing conflicts between development and conservation interests that will require the project's attention into the next phase. In addition, ICM functions, procedures and schedules need to be harmonized with "mainstream" development planning practices to avoid duplication and ensure compatibility with the existing framework. Further, sufficient human resources, with specific responsibility for ICM, must be invested at each administrative level from the national government to coastal communities.

Although the institutional coordination arrangements have been developed for ICM by linking CITMA to other governmental, sectoral, and community-based stakeholders, the fundamental institutional structure is still lacking. A functioning ICM Authority is necessary in the long-run to manage the system's implementation across the SCE, and to assume the gradual transfer of project functions. The Authority is therefore essential for ICM sustainability beyond the project horizon. A fully-operational ICM Authority will need to be established during the next project phase to help Cuban society to realign their use of coastal resources so that ecosystems remain productive and viable for future generations..

At the same time, there are many aspects of the project that have encouraged decision-makers to consider sustainability as a guiding principle for their activities. For example, the Director of Development of MINTUR considers that "…the project has helped us understand the importance of sustainability for the future of our products; we are now

developing a foundation for sustainable tourism." Without the project, the SCE would have undergone a more accelerated rate of environmentally damaging tourism development with detrimental effects on land use and biodiversity. In Cayo Coco, inventories have confirmed biodiversity levels and endemic species surpassing original estimations; which has led to more stringent environmental controls for tourism and infrastructure development. The impact on tourism is observable not only through improved environmental compliance in hotel design, construction and landscaping, but on a regional scale as well through the adoption of a "Indicators for Sustainable Tourism" (formulated with project support) by members of the Association of Caribbean States. The participation of 119 scuba-diving instructors from the tourism sector in marine biodiversity monitoring, initiated by the project, will be expanded on a national scale to approximately 1,000 diving sites along Cuba's coast.

> *"It is no longer only the State that assumes responsibility; now, the sectors, enterprises, communities and individuals are becoming part of the solution and participate more each time."*
>
> *- The project coordinator for Matanzas province*

The enthusiasm and momentum generated by the project implementation strategy – promoting "ecosystems" thinking, strengthening cross-sector linkages for planning and monitoring, applying capacity building to actual practice and encouraging participation at various levels – will go a long way toward sustaining this innovative process in the future. A new style of work has taken hold and is spreading, as seen with the growing demand for the training modules. For the first time, the five provinces which share the SCE have come together for a common goal, and in doing so have collectively raised their environmental awareness levels and management capacities. The exposure to environmental and sustainable development issues by the training modules and other project activities, has brought technicians and decision-makers closer together – demistifying preconceptions and promoting a common vision. Relations between developers and conservationists are less adversarial and increasingly based on seeking consensus. The project has been strategic in opening new doors for CITMA and strengthening its ability to convoke other sectors and ensure environmental compliance.

> *"The project has prepared us to move forward on our own in many ways…that is the most important thing."*
>
> *"The style of the Sabana-Camaguey project has arrived to stay. We will make sure that the progress we have achieved is not lost."*
>
> - Quotes from meetings with the Camaguey and Matanzas project teams

- **<u>Upgrading of staff skills</u>**

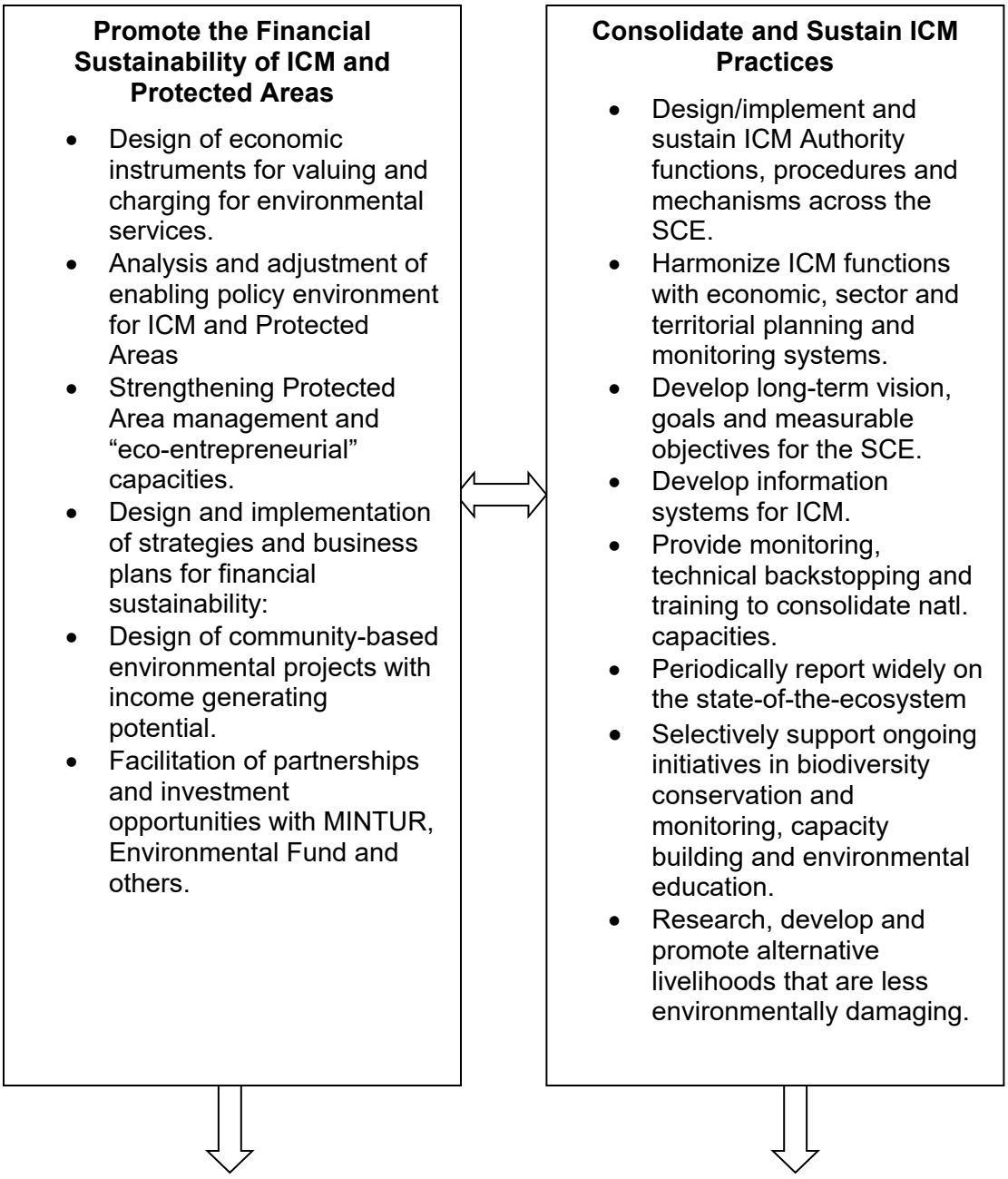
The project has contributed significantly to the upgrading of staff skills, especially because of the inclusion of the Capacity 21 component. The number of consultants contracted, events, workshops, study tours, and courses attended is impressive. Even more impressive, however, is the obvious knowledge level and technical sophistication of staff members who were contacted during the field interviews. These personal experiences are corroborated by the evaluations that have been made of each of the courses and workshops that have been presented during the life of the project. It is also evident because of the number of missions staff members have made to provide technical assistance to other islands of the Caribbean.

5. RECOMMENDATIONS

1. Third Phase Project: The first two phases of the SCE project have largely achieved their objectives of putting into place the institutional structures for ICM and making substantial progress in biodiversity conservation. The central recommendation of this evaluation is that a 3rd phase project be developed and implemented in keeping with the original vision. The essential elements recommended for inclusion in a 3rd phase project are shown diagrammatically below:

Suggested Areas of Focus for a 3rd Phase Project

A Framework for Sustaining Integrated Coastal Management in the SCE

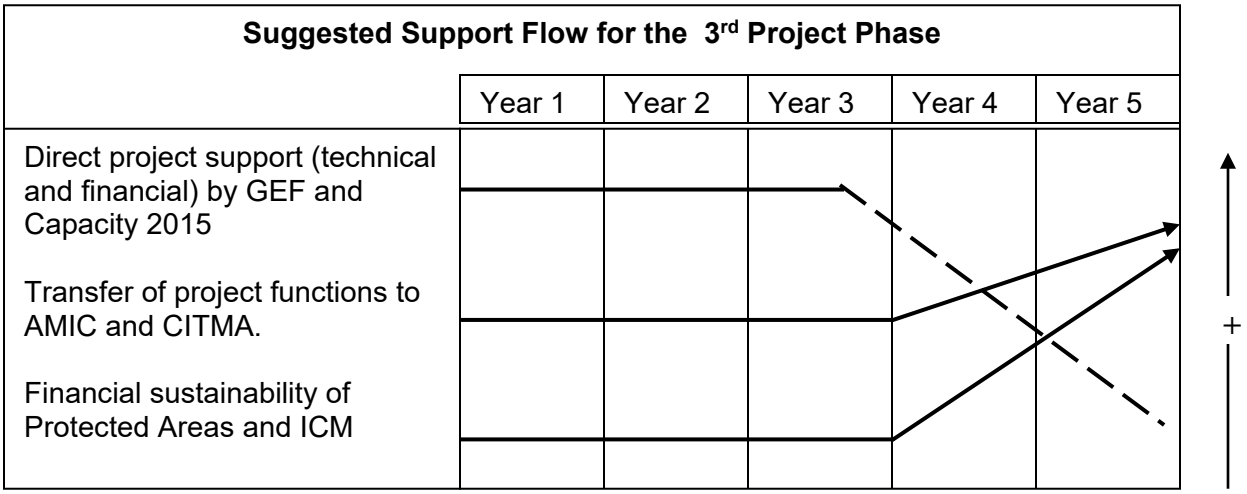


Integrate ICM Practices, Experiences and Lessons Learned into a Replicable Model for the Sustainable Development of Coastal Areas

- Documentation and systematization of experiences and "best practices."
- Adoption of ICM as a model for coastal sustainable development.
- Dissemination and exchanges of SD model on a national and regional scale.
- Availability of technical support services by CITMA to assist new coastal management and conservation initiatives in Cuba and the Caribbean.

It is recommended that the 3rd phase project cover a period of 5 years. Most of the project funding should be front-loaded for disbursement during the first 3 years. Hopefully, by the 4th and 5th years, efforts at developing sustainable finance will bear fruit, and will be able to begin to contribute increasing amounts of funding, as shown diagrammatically below:

Suggested Support Flow for the 3rd Project Phase



2. Sustainable Finance: Much work remains to ensure the conservation of biodiversity in the SCE. The first priority is to sustain and enhance the many achievements of the 1st and 2nd phases of the project. The central requirement for achieving this is the development of the capacities and mechanisms for sustainable finance. This can be achieved in three main ways:

- by developing and marketing new ecotourism and natural products;
- by appropriately valuing and charging for existing ecosystem services; and,
- by developing mechanisms to capture international and domestic funding to pay for the global benefits generated by biodiversity conservation in the SCE.

Specialized expertise is required to research, develop, and implement the most promising options for financial sustainability. It is recommended that a special unit with the requisite skills be established to carry out this major and fundamental task. This Unit might initially

be housed within an existing institution, but in the long run there may be advantages of creating an independent organization. In the first instance, this Unit, with international technical assistance, could research and evaluate alternative means and structures for developing sustainable finance over the long-run. One option that has worked in many countries of Latin America and the Caribbean with varying degrees of success, is the establishment of an independent fund or foundation. Experience has shown that those funds with the greatest autonomy have the ability to tap the widest spectrum of potential financial resources. It would be necessary, however, to carefully evaluate how such an institution might fit into the Cuban context.

The Unit would have a small specialized staff charged with developing and implementing the financial tools for sustaining biodiversity conservation enumerated above. Unit staff would also assist with training on sustainable finance issues, and carry out consultancies to help develop valuations and determine appropriate fees for environmental services, business plans, and specific ecotourism and natural products for the ICM Authority and the protected areas within the SCE. Thus, the Unit would not only serve the needs for financial sustainability of the Sabana - Camagüey Project, but could also serve the needs of other biodiversity conservation iniciatives such as the GEF Protected Areas Project. Indeed the Unit could be a very practical but powerful mechanism for providing central financial services and developing synergies among the projects of the GEF portfolio in Cuba. The Latin American and Caribbean Association of Environmental Funds (RedLAC for its initials in Spanish), originally encouraged and supported by UNDP, should be tapped as a major source of expertise and guidance. It is further recommended that every effort be made in designing future projects to include seed funding to provide initial capitalization for sustainable finance.

3. ICM Authority for the SCE: While sustainable finance is a key element for maintaining and enhancing the achievements of the 1st and 2nd phase projects, new and additional inputs will also be required. The most important of these is the commitment of the GoC for actual implementation and operation of the ICM Authority for the SCE which was legally established in April, 2004, but which is not yet up and running. The alternatives for structuring the ICM Authority have been developed, analyzed, and put forward to Government authorities during the 2nd phase project. Ideally future project support (increasing by the GoC and decreasing from international sources over the course of the next phase) would provide resources for full implementation. Once the Authority is up and running, emphasis should be placed on developing and implementing an integrated coastal management process for the SCE. This must be a continuous and dynamic process that includes the active and sustained involvement of the interested public and the many stakeholders with interests in how coastal resources are allocated and conflicts are mediated. This will be the means by which concerns at the local, regional and national levels are discussed and future directions are negotiated.

An ICM Plan should be developed to provide a clear and broadly-shared long-term vision for the environmental, social, cultural and economic sustainability of the SCE; establish common goals and measurable objectives; incorporate additional work in capacity building and environmental education; stronger participation of resource user in decisions affecting their livelihoods; more proactive natural resource management in both the productive landscapes and protected areas, especially with regard to fisheries, tourism, and changing land use along the coast; the maintenance and enhancement of monitoring processes; the building of linkages among sectoral and provincial planning and budgeting systems; periodic widely distributed state-of-the-ecosystem reports that summarize information on

trends, disseminate best practices and information on progress achieved; and the identification and promotion of alternative livelihoods to replace those that are having negative impacts on biodiversity conservation.

4. National, Regional, and International Outreach: The outreach efforts to other parts of Cuba, the Caribbean region and beyond that were effectively initiated during the first two phases of the project need to be continued and expanded. This should include the sharing of data, scientific knowledge, project outputs, and lessons learned; regional cooperation on understanding the predicted impacts of and developing adaptation strategies for climate change; cooperating on a hemispheric scale for research and conservation efforts for many migratory birds, for which Cuba holds an international patrimonial responsibility; cooperation and consistent tracking and control measures for invasive species; regionally-consistent approaches to shipping hazards, and oil spill contingency planning and response; as well as advocacy for international agreements and standards. At some point, it might also be possible to share regionally and internationally a more holistic model of sustainable development in the context of a Cuban approach to ICM.

5. Information Systems: Though not adequately funded during the 2nd phase Project, considerable progress has been achieved on Information systems related to the SCE. A data base, including a GIS system, has been developed, but because of both hardware and software limitations, this data base is not readily available to the many institutions in the project area that require it. Thus, in future projects, emphasis should be placed on upgrading the information system to assure that information generated by the project is readily available to all stakeholders.

As most data-generators will probably develop and maintain their own systems, the SCE Information System might operate most effectively as a meta-database that maintains and posts an overall listing of all data sets available, and has direct (hot) links to the many respective databases that the individual data generators/holders would maintain. This would distribute the data management and dissemination responsibilities; the many distributed data generators would focus on maintaining and keeping up to date their own system, and the Project Office would focus on ensuring that the overall system was functioning adequately and that the many links to individual data sets are functional.

6. Legal Establishment of the 4 Undeclared Protected Areas: The approval process for the 4 remaining protected areas to be established in the Project area has been slower than originally expected. It would be a fitting conclusion to the 2nd phase project if these 4 areas were to be legally established.

7. Protected Area Business Plans: A more specific recommendation is that the management and operational plans for the protected areas of the SCE be brought into alignment with financial possibilities. As they are today, these plans tend to define what needs to be done independently of the resources currently or potentially available. Thus, in practical terms, these plans do not guide actual management of the area. In the future, staff from the Sustainable Finance Unit should work closely with the protected area managers and planners to develop a business plan for the area and, based on this, redefine and reschedule management activities in terms of the resources that are expected to be available.

8. Follow-up Survey on Attitudes towards the Environment: Before the close of the 2nd phase project, it is important to conduct a follow-up survey of attitudes toward the environment using the same methodology as the original survey employed at the beginning of the Project. This survey would enable a comparison and contrasting of attitudes over time, and an identification of needs for future education, outreach, and capacity building to guide the detailed design of future projects.

9. Maintain Key Activities: In designing a future project, it is important to continue and enhance the good work that was started in the 2nd phase, especially on key topics such as research on spawning areas within the SCE, development of participatory early warning systems for coral reefs, evaluation of the results obtained through the creation of fishery reserves, research on invasives and their effects, and monitoring the effects of on-going resource use, and environmental training of decision-makers. Many of these activities will require sustained effort over many years to realize their full results

10. Diversification of Project Coordination Capacities: In future projects, it will be important to diversity the capacities of the Project Coordination Unit with specialists in sustainable finance, ICM, natural resource management, and the social sciences.

11. Project Savings: It is recommended that UNDP/GEF and the GoC approve the concept of applying project savings as bridging funds for 2005, and seek matching funds to maintain project momentum during the interim between the 2nd and 3rd phases of the project, starting with those countries (e.g. Canada), or municipalities within countries (e.g. Spain) which already identify with, and have invested in, the project.

12. Equitable Distribution of Project Costs and Benefits: ICM project interventions normally shift the distribution of costs and benefits related to natural resource management among different stakeholders, often increasing costs to those, relatively few who have traditionally held power, and increased benefits to the many less influential and directly-identifiable stakeholders (e.g., non-traditional resource users and general public). In future project interventions, these shifts need to be tracked so that measures can be implemented to mitigate injustices that might arise and threaten the long-term cooperation and adherence to the project's objectives.

13. Strengthening Public Participation: Greater participation is important to increase project efficiency and effectiveness, to encourage self-reliance among the participants and to increase the numbers of people who potentially benefit from the project. If local people can share in explaining the causes of resource degradation, they may more readily identify with the solutions. But the project must be clear as to whether participation is a 'means' or an 'end'. Participation as a 'means' implies the use of participation to achieve some predetermined goal or objective (e.g., a way of harnessing the existing physical, economic and social resources of people in order to achieve the objectives of the project). Participation as a means stresses the results of participation, in that the achieving of predetermined targets is more important than the act of participation. Conversely, participation as an 'end' sees participation essentially as an active and dynamic process which unfolds over time and whose purpose is to develop and strengthen the capabilities of local people to intervene more directly in project initiatives. Such a process may not have predetermined measurable objectives or even direction. Phase 3 of the SCE project must be clear to itself, and those it will engage, whether participation is a means or an end.

14. Links to ICM Masters Program: Future project interventions should develop stronger links with the new Cuban Masters Program in ICM that is a cooperative effort among the Universities of Havana, Cienfuegos, and Oriente). This recently established Program is already serving as a key source of ICM professionals that can play a significant role in helping the participants understand the complex task of integrated management and play a facilitation or 'honest broker' role in the challenging institutional and inter-personal dynamics that characterize these processes. The Masters Program can also serve a policy research role through the linking of project needs and student theses. Equally, the SCE project could serve as a local and highly-relevant teaching case study for the students. The relationship between the SCE Project, and the Masters in ICM Program should be strong in Phase 3 with challenging, but achievable targets for tertiary-level training and capacity building.

6. LESSONS LEARNED

The Project Coordinating Unit and the Project Evaluation Team have both identified a number of important major lessons.

The Project Coordinating Unit has, over the life of the project, identified the following major lessons:

1. Widespread participation by government decision-makers at the national, provincial and municipal levels together with scientists, planners, business managers, and law enforcement staff generates an integrated work culture that is enormously productive, educational, and transparent. The integrated approach to biodiversity conservation within the context of a coastal management program requires large upfront investments in time and resources. However, over the long run these investments are well worth it because of the enabling environment they create.

2. Widespread participation in the project has generated recognition of the efforts invested in participatory and cooperative inter-sectoral and inter-institutional approaches, because the results a readily apparent. This has resulted in an understanding of the environmental problems that have been identified through research and monitoring, and the benefits to be gained by working together for biodiversity conservation.

3. Group capacity building activities, which involve many institutions, develop understandings, approaches, criteria, and skills that later make it easy to work together, and which facilitate replication outside the project area.

4. Early successes in demonstrating environmental and socio-economic benefits from project activities motivate both staff and stakeholders.

5. Project staff participation in the strengthening of national strategies, laws, and regulations has paid off by enhancing significantly the enabling environment for the project.

6. The interaction of staff with local governments in the identification of alternatives for mitigating or resolving environmental issues is an effective and efficient way for furthering project outcomes.

7. Local initiatives outside the immediate project context have generated co-financing that has helped achieve project outcomes.

From its own perspective, the Evaluation Team has identified the following additional lessons:

1. For projects that encompass a large geographical area, a project design which sets general overall targets, but does not overly plan activities, enables the adaptation of the project to the varying contexts within the project area.

2. The ecosystem-based approach, though it often implies a very large project area, is the most relevant unit for a biodiversity project.

3. A project which is implemented by the country's line institutions at the national, provincial, and municipal levels reduces the problems of mainstreaming that arise from projects that are implemented by an independent project team.

4. The inclusion of both GEF and Capacity 21 in one common project creates synergies and value added that could not be obtained by separate projects. It also promotes a holistic approach that has a greater chance of success.

5. While sustainable finance for project interventions is simple in concept, it cannot be dealt with simplistically. There are very few cases where long-term finance has been achieved to sustain the outputs and impacts of a specific project. Thus, measures to develop sustainable finance must be dealt with realistically, and adequate time, and financial and technical resources must be built into the project. Equal consideration needs to be given to inputs from resource economists and from those with practical experience in fundraising gained through environmental and protected area funds.

6. While a solid logical framework is crucial to organizing and structuring the project and for creating accountability, it can also become an obstacle to creative analysis and thinking. Thus, specific activities need to be planned to encourage staff to think outside the box, question logic, and develop intuition. These are essential skills for adaptive management.

7. The use of information technologies is a must for complex biodiversity projects. If these technologies cannot be funded by GEF because of incremental cost considerations, every effort must be made to fund this through counterpart funding arrangements. If the required resources cannot be made available, then the project must be redesigned.

8. The inclusion of a Project Administrator in the project staff is essential from the very beginning of the project.

7. ANNEXES

ANNEX I – TERMS OF REFERENCE

I. INTRODUCTION

UNDP/GEF The Monitoring and Evaluation (M&E) policy

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives: i) to monitor and evaluate results and impacts; ii) to provide a basis for decision making on necessary amendments and improvements; iii) to promote accountability for resource use; and iii) to document, provide feedback on, and disseminate lessons learned. A mix of tools is used to ensure effective project M&E. These might be applied continuously throughout the lifetime of the project – e.g. periodic monitoring of indicators -, or as specific time-bound exercises such as mid-term reviews, audit reports and final evaluations.

In accordance with UNDP/GEF M&E policies and procedures, all regular and medium-sized projects supported by the GEF should undergo a final evaluation upon completion of implementation. A final evaluation of a GEF-funded project (or previous phase) is required before a concept proposal for additional funding (or subsequent phases of the same project) can be considered for inclusion in a GEF work program. However, a final evaluation is not an appraisal of the follow-up phase.

Final evaluations are intended to assess the relevance, performance and success of the project. It looks at early signs of potential impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. It will also identify and document lessons learned and make recommendations that might improve design and implementation of other UNDP/GEF projects.

Project Background

The project to be evaluated encompasses the Sabana - Camagüey Ecosystem (SCE) occupying a strip of approximately 465 km along the central north zone of Cuba. It includes the northern watersheds of five provinces of the country, as well as the archipelago, the adjacent marine shelf and the oceanic Exclusive Economic Zone. Its archipelago constitutes the largest system of keys in the Wider Caribbean and represents 60% of all the Cuban keys in number (2,515 keys). Mangrove swamps are profusely distributed in the keys and along the mainland coast. The keys, beaches and coral reefs of the region are well known for their quality and beauty. The larger keys are populated with diverse plant formations.

This variety of habitat supports a great diversity of marine and terrestrial flora and fauna, and gives shelter to a high level of terrestrial endemism, which places this zone among the richest in biodiversity in Cuba and the Wider Caribbean. More than 708 species of terrestrial flora have been found in the area. Of these, 126 are endemic. Additionally, 958 species of terrestrial fauna, including 549 insects and 209 species of birds, have been noted. This part of Cuba provides winter habitat for visiting birds. In recognition of this outstanding value, the important links this area has with other ecosystems in the boarder region, and the long term effort that is required to establish integrated coastal zone management, in 1992 the Government of Cuba (GoC) developed a long-term intervention

for conservation of biodiversity and promotion of sustainable development of the Sabana - Camagüey Ecosystem and sought assistance from the Global Environment Facility as one of several funding sources.

In December 1993 the 1st phase of GEF support to this long-term intervention was signed through the Project CUB/92/G31 titled *Protecting Biodiversity and Establishing a Sustainable Development in the Sabana - Camagüey Ecosystem*, financed by the GEF, the GoC (Ministry of Science Technology and Environment, Ministry for Foreign Investment and Collaboration) and Environment Canada. This 1st phase project (1993-7) focused on the provision of information for identifying appropriate conservation measures and provided a Strategic Plan that serves as a foundation for the operation of the Sabana - Camagüey Authority. Following successful completion of this phase, a second phase was signed in 1998 titled (CUB/98/G32) *Cuba: Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey Ecosystem* with support from GEF, GoC; various Canadian sources and UNDP Capacity 21 programme. This phase had the following specific objectives

- Establish eight key protected areas for conservation, demonstration and potential replication.
- Consolidate the institutional co-ordination capacities for integrated, sustained and long-term coastal management in aspects related to biodiversity conservation.
- Educate and inform communities and key actors active in the SCE about the need for and importance of biodiversity conservation.
- Strengthen the awareness and capacity for the environmentally appropriate integrated coastal management among the institutions, sectors and main communities along the Sabana - Camagüey Ecosystem to reach sustainable development (Capacity 21)

II. OBJECTIVES OF THE EVALUATION

The evaluation is to be the final evaluation of the above stated project. It has been initiated in accordance with UNDP/GEF M&E policies and procedures and will be jointly financed through the project resources, the UNDP Country Office in Cuba and the Government of Cuba. Its main objective is to analyze and document the results obtained through the execution of this second phase project over the period 1999-2004 and assess the impacts achieved and their sustainability. The methodology to be used is described in Section

More specifically the focus of the evaluation will be:

- To evaluate the attainment of project objectives, outcomes/impacts, and delivery and completion of project outputs/activities
- To evaluate project achievements according to GEF Project Review Criteria including Implementation approach, Country ownership/Driveness, Stakeholder participation/ Public Involvement, Sustainability, Replication approach, Financial planning, Cost-effectiveness, Monitoring and evaluation (see Annex IV for terminology)
- To identify the problems or constraints which may have affected the smooth implementation of the project and achievement of impacts

- To recommend any outstanding measures needed to assure the viability and sustainability of the Sabana - Camagüey Ecosystem and the results obtained through the project so as to orient the preparation of the next phase of this long-term intervention including any potential new GEF interventions.
- To identify lessons learnt that can be disseminated to relevant GEF projects and to the national authorities involved in the project as they plan follow up actions. This should include lessons learnt regarding the collaboration with Capacity 21 as a main co-funder of one of the components of the project.

III. PRODUCTS EXPECTED FROM THE EVALUATION

There will be two specific products of this evaluation. The first will be an oral presentation of preliminary findings to the UNDP Resident Representative and Sabana - Camagüey related authorities including the Ministry of Foreign Investment and Collaboration, Ministry of Science Technology and Environment, Ministry of Tourism, Local Governments and other relevant stakeholders. This should be on the last day of the in-country section of the mission before departure from Cuba.

The second will be the final report to be prepared by the team leader with inputs from the other consultants, summarizing the evaluation findings. The evaluation report would summarize the findings, assessment of performance, lessons learned, recommendations and description of best practices following the outline presented below and including the scope and specific issues provided in Section VII.

The Evaluation Report Outline should be based on GEF Guidelines on Terminal Evaluations and structured along the following lines.

- Executive summary
- Introduction
- The project(s) and its development context
- Findings and Conclusions
- Project formulation
- Implementation
- Results
- Recommendations
- Lessons learned
- Annexes

The first version of this report should be presented in electronic format within two weeks of completion of the in-country part of the mission. This will be circulated to interested parties and comments sent to the evaluator. These comments should focus more on possible errors in terms of data in the report rather than on questioning evaluators impressions. If there are discrepancies between the impressions and findings of the evaluation team and the aforementioned parties these should be explained in an annex attached to the final report.

IV. METHODOLOGY OF THE EVALUATION

The team of experts hired for the evaluation will assist the UNDP Regional Bureau for Latin America and the Caribbean in providing an independent and in-depth evaluation of the project *Priority Actions to Consolidate Biodiversity Protection in the Sabana - Camagüey*

Ecosystem. Operationally this project has resources channeled through two UNDP projects. These are the GEF CUB/98/G32 project that provides the umbrella framework for the intervention, and the Capacity 21 project CUB/99/G81/A/5G/ that funds one of its components. The evaluation team will thus include a consultant to address specific Capacity 21 monitoring and evaluation requirements and provide the evaluation of this component to the full GEF evaluation report. The specific ToR for this are included as Annex III. To facilitate the incorporation of information on the Capacity 21 component to the overall GEF Evaluation Report, the Capacity 21 report would be structured using the same format as the GEF evaluation report. Furthermore the Capacity 21 expert will collaborate closely with the broader team and particularly at the start of the mission to determine timeframe and forms of exchange, and during the preparation and review of the final report. He/she will appraise the final GEF report to ensure that conclusions adequately reflect the Capacity 21 evaluation findings.

The evaluation team will also work in collaboration with staff from UNDP Country Office and the project team, to assess the project execution. Based on these assessments, the evaluation team will also recommend strategies and actions aimed at improving the project implementation process. The methodology to be used by the evaluation team should consist of the following:

- Prior review of key documentation to be provided by UNDP Cuba and listed in Annex II of these Terms of Reference
- An in-country mission consisting of visits to the Sabana - Camagüey Ecosystem where the project has had on the ground interventions; interviews with the project team and review of project reports and documentations; interviews with the main stakeholders in the region; interviews with national level stakeholders and interviews with the UNDP office in Havana.
- Home-based follow up period for completion of the evaluation report and including the circulation and review of the report amongst the evaluating team

V. EVALUATION TEAM

In order to undertake this evaluation, a team of **4** consultants (**3** international and **1** national) will be selected by common consent by the UNDP-Havana, the LAC UNDP/GEF Regional Coordination Unit in Mexico (UNDP/GEF/LAC), Capacity 21 and the national authorities. The consultants will be highly qualified in disciplines relating to the topics dealt with in the projects to be evaluated. One of the international consultants will be the team leader and will be responsible for the final presentation of the evaluation report. As such the team leader will liaise with other team members to define the *modus operandus* and timing of their inputs to the report and their final reviews.

VI. EVALUATION IMPLEMENTATION ARRANGEMENTS

The UNDP Cuba Country Office will be the main operational point for this evaluation. They will be responsible for liaising with the project team to set up the stakeholder interviews, arrange the field visits, co-ordinate with the Government of Cuba the hiring of the national consultant and ensure the timely provision of per diems and travel arrangements within Cuba for the evaluation team. The hiring of the international consultants will be funded jointly through the project. A budget for the mission is included in Annex I.

These Terms of Reference follow the UNDP GEF policies and procedures, and together with the final agenda will be agreed upon by the UNDP/GEF/LAC, UNDP Cuba and the Government of Cuba. These three parties will receive a draft of the final evaluation report and provide comments on it prior to its completion.

The estimated time for the evaluation mission is 14 days excluding the period during which the first draft of the report is circulated for feed back. Time allocation is expected to be as follows:

- Desk review prior to in-country mission: **3 days** for international consultants (including travel time to and from Cuba) and 2 days for the national consultant.
- Briefings for evaluators from the UNDP Cuba Country Office and project team: **0.5 days**
- Stakeholder interviews in Havana, and in-team discussion prior to field visit **1.0 day**
- Visits to the field, stakeholders interviews in project region and review of project reports and records: **5 days**
- Validation of preliminary findings with UNDP Country Office and stakeholders (2 different meetings) through verbal presentation of general impression **0.5** days
- In team meetings to define preparation of inputs to draft evaluation report following format in Section 7 of these ToR**: 0.5** days
- Preparation of draft report and circulation for comments **2.5 days** team leader and **1.0** day for each of the other members. There will be a period of 10 days for interested parties to read of the draft report by.
- Final drafting of report addressing comments from interested parties and team members **1.5 days** team leader and **1 day** each of the other members

VI. SCOPE OF THE EVALUATION – SPECIFIC ISSUES TO BE ADDRESSED

This section outlines the broad categories and concerns that should be included and rated in the evaluation in conformity with the recent GEF guidelines for final evaluations. It also highlights specific issues to be addressed under each broad category. Annex IV provides more detailed guidance on terminology and the GEF Project review Criteria.

In addition to specific issues, two characteristics affect the scope of this evaluation. The first is the fact that the project under evaluation is a follow up of a First Phase project. The second is that the initiative was originally approved as part of a long-term intervention with 3 phases each with proposed contributions of GEF support. In view of this, and in recognition that biodiversity conservation in the framework of integrated coastal zone management requires complex set of actions over long periods of time, the Government of Cuba is developing the third phase and is seeking support for this from GEF as indicated in the original project document.

1. Executive summary

- Brief description of project
- Context and purpose of the evaluation
- Main conclusions, recommendations and lessons learned

2. Introduction

- Purpose of the evaluation
- Key issues addressed
- Methodology of the evaluation

- Structure of the evaluation

3. The project(s) and its development context

- Project start and its duration
- Problems that the project seek to address
- Immediate and development objectives of the project
- Main stakeholders
- Results expected

4. Findings and Conclusions

In addition to a descriptive assessment, all criteria marked with (*) should be rated using the following divisions: Highly Satisfactory, Satisfactory, Marginally Satisfactory, Unsatisfactory

4.1. Project Formulation

- Conceptualization/Design (*). This should assess the approach used in design and an appreciation of the appropriateness of problem conceptualization and whether the selected intervention strategy addressed the root causes and principal threats to terrestrial and marine biodiversity in the project area. It should also include an assessment of the logical framework and whether the different project components and activities proposed to achieve the objective were appropriate, viable and responded to contextual institutional, legal and regulatory settings of the project area SCE and in particular of the SCA. It should also assess the indicators defined for guiding implementation and measurement of achievement and whether lessons from other relevant projects (e.g., same focal area) were incorporated into project design.

- Country-ownership/Driveness. Assess the extent to which the project idea/conceptualization had its origin within national, sectoral and development plans and focuses on national environment and development interests.

- Stakeholder participation (*) Assess information dissemination, consultation, and "stakeholder" participation in design stages

- Replication approach Determine the ways in which lessons and experiences coming out of the project were/are to be replicated or scaled up in the design and implementation of other projects (this also related to actual practices undertaken during implementation)

- Other aspects to assess in the review of Project formulation approaches would be UNDP comparative advantage as IA for this project; the consideration of linkages between projects and other interventions within the sector and the definition of clear and appropriate management arrangements at the design stage

4.2. Project Implementation

- Implementation Approach (*). This should include assessments of the following aspects:

(i) The use of the logical framework as a management tool during implementation and any changes made to this as a response to changing conditions and/or feedback from M and E activities if required.

(ii) Other elements that indicate adaptive management such as comprehensive and realistic work plans routinely developed that reflect adaptive management and/or; changes in management arrangements to enhance implementation.

(iii) The project's use/establishment of electronic information technologies to support implementation, participation and monitoring, as well as other project activities

(iv) The general operational relationships between the institutions charged with conservation, tourism development, fisheries and others and how these relationships have contributed to effective implementation and achievement of project objectives.

(v) Technical capacities associated with the project and their role in project development, management and achievements

- Monitoring and evaluation (*). Including an assessment as to whether there has been adequate periodic oversight of activities during implementation to establish the extent to which inputs, work schedules, other required actions and outputs are proceeding according to plan; whether formal evaluations have been held and whether action has been taken on the results of this monitoring oversight and evaluation reports.

- Stakeholder participation (*) (ii) This should include assessments of the mechanisms for information dissemination in project implementation and the extent of stakeholder participation in management, emphasizing the following:

  (i) The production and dissemination of information generated by the project as part of its strategic plan to involve upstream (policy review) and downstream (stakeholders) perspectives in biodiversity protection: awareness raising, institutional and technical capacity building, resource mobilization, information exchange

  (ii)Local resource users and NGOs participation in project implementation and decision making and an analysis of the strengths and weaknesses of the approach adopted by the project in this arena

  (iii) The establishment of partnerships and collaborative relationships developed by the project with local, national and international entities and the effects they have had on project implementation.

  (iv) Involvement of governmental institutions in project implementation, the extent of governmental support of the project,

- Financial Planning: Including an assessment of the actual project cost by objectives, outputs, activities; the cost effectiveness of achievements; financial

management (including disbursement issues); co-financing (please see guidelines in Annex IV for reporting of co-funding) and compliance with the application of the incremental cost concept.

- Execution and implementation modalities. This should consider the effectiveness of the UNDP counterpart and Project Co-ordination Unit participation in selection, recruitment, assignment of experts, consultants and national counterpart staff members and in the definition of tasks and responsibilities; quantity, quality and timeliness of inputs for the project with respect to execution responsibilities, enactment of necessary legislation and budgetary provisions and extent to which these may have affected implementation and sustainability of the Project; quality and timeliness of inputs by UNDP and GoC and other parties responsible for providing inputs to the project, and the extent to which this may have affected the smooth implementation of the project.

4.3. Results

- Attainment of Outcomes/ Achievement of objectives (*): Including a description *and rating* of the extent to which the project's environmental and development objectives were achieved using Highly Satisfactory, Satisfactory, Marginally Satisfactory, and Unsatisfactory ratings. If the project did not establish a baseline (initial conditions), the evaluators should seek to determine it through the use of special methodologies so that achievements, results and impacts can be properly established. This section should also include reviews of the following:

  (i) The legislative and regulatory framework developed as part of the project implementation to facilitate biodiversity protection.

  (ii) The environmental education and awareness component of the project to assess its broad effects on the general awareness of the global and local values of coastal marine habitat and species.

  (iii) The quantity and quality of information gathered relevant to biodiversity conservation and the effectiveness of the information base strengthened through the project.

  (iv) The creation and strengthening of the monitoring stations and protected areas administrations, for monitoring and biodiversity protection.

  (v) The capacity building activities carried out by the project and their effect on the long-term sustainability of biodiversity protection.

- Sustainability: Including an appreciation of the extent to which benefits continue, within or outside the project domain after GEF assistance/external assistance in this phase has come to an end. Specific focus should be places on the following the Project's approach towards the long-term institutionalization of project objectives, i.e. proposed institutional framework for inter and intra provincial coordination and collaboration in coastal zone management and biodiversity protection.

- Contribution to upgrading skills of the national staff

5. Recommendations

This should provide clear recommended actions to follow up or reinforce benefits from the project, highlighting actions required for the future strengthening of biodiversity conservation in Sabana - Camagüey and to enhance the sustainability of the project impacts. Where possible this should include recommendation on specific actions to improve the integration of tourism development in biodiversity protection, with special emphasis on the financial sustainability of conservation programs, and also an appreciation of any new or un-addressed threats that may be impacting on biodiversity in the broader seascape of the archipelago. It should also include recommendation to improve effectiveness of the project management structures, its strategic direction and its capacity building efforts for further phases of this long term intervention including any potential GEF supported.

6. Lessons learned

This should highlight the best and worst practices in addressing issues relating to relevance, performance and success. Observations should not be limited to the assessment of project outputs with reference to the development objectives, but should also cover the development of national capacity for conservation and sustainable utilization of natural resources and biodiversity.

7. Annexes
TOR
Itinerary
List of persons interviewed
Summary of field visits
List of documents reviewed
Questionnaire used and summary of results

VIII. TERMS OF REFERENCE ANNEXES

Annex I: Budget
Annex II: List of Documents
Annex III: ToR for Capacity 21 Consultant
Annex IV: Terminology in the GEF Guidelines to Terminal Evaluations

Annex I Evaluation Budget

1. Salary and DSA

A lump sums of 8,800 US$ which includes salaries and DSA for the correspondent localities, will be paid according to a contact to be signed between the consultant and the Project Director.

2. Travel Costs

Arrival date:
Departure date:
Tickets
Terminal expenses

Annex II Documents to be provided to the evaluator team by UNDP Cuba

1. Project Brief and Annexes approved by GEF Council for the Consolidation of Biodiversity Protection of the Sabana - Camagüey Ecosystem
2. UNDP Project Document (Primera Fase)
3. First Phase Final Report
4. UNDP Project Document (Segunda Fase)
5. Mid-term evaluation report of
6. List of documents and working papers produced by the project
7. Copies of publications or internal project reports containing specific evidence of project impacts particularly in terms of policy changes achieved through project actions
8. Tripartite Project Review Report 2003
9. PIR (2001, 2002, 2003, 2004
10. Impact indicators developed by the team and their different measurements along the course of the project
11. Biodiversity Strategic Priorities 1 and 2 GEF 3

Annex III ToR for Capacity 21

Annex IV. Explanation on Terminology Provided in the GEF Guidelines to Terminal Evaluations

Implementation Approach includes an analysis of the project's logical framework, adaptation to changing conditions (adaptive management), partnerships in implementation arrangements, changes in project design, and overall project management.

Some elements of an effective implementation approach may include:
The logical framework used during implementation as a management and M&E tool
Effective partnerships arrangements established for implementation of the project with relevant stakeholders involved in the country/region

Lessons from other relevant projects (e.g., same focal area) incorporated into project implementation
Feedback from M&E activities used for adaptive management.

Country Ownership/Driveness is the relevance of the project to national development and environmental agendas, recipient country commitment, and regional and international agreements where applicable. Project Concept has its origin within the national sectoral and development plans

Some elements of effective country ownership/driveness may include:
- Project Concept has its origin within the national sectoral and development plans
- Outcomes (or potential outcomes) from the project have been incorporated into the national sectoral and development plans
- Relevant country representatives (e.g., governmental official, civil society, etc.) are actively involved in project identification, planning and/or implementation
- The recipient government has maintained financial commitment to the project
- The government has approved policies and/or modified regulatory frameworks in line with the project's objectives

For projects whose main focus and actors are in the private-sector rather than public-sector (e.g., IFC projects), elements of effective country ownership/driveness that demonstrate the interest and commitment of the local private sector to the project may include:
- The number of companies that participated in the project by: receiving technical assistance, applying for financing, attending dissemination events, adopting environmental standards promoted by the project, etc.
- Amount contributed by participating companies to achieve the environmental benefits promoted by the project, including: equity invested, guarantees provided, co-funding of project activities, in-kind contributions, etc.
- Project's collaboration with industry associations

Stakeholder Participation/Public Involvement consist of three related, and often overlapping processes: information dissemination, consultation, and "stakeholder" participation. Stakeholders are the individuals, groups, institutions, or other bodies that have an interest or stake in the outcome of the GEF-financed project. The term also applies to those potentially adversely affected by a project.

Examples of effective public involvement include:

<u>Information dissemination</u>
- Implementation of appropriate outreach/public awareness campaigns

<u>Consultation and stakeholder participation</u>
- Consulting and making use of the skills, experiences and knowledge of NGOs, community and local groups, the private and public sectors, and academic institutions in the design, implementation, and evaluation of project activities

<u>Stakeholder participation</u>
- Project institutional networks well placed within the overall national or community organizational structures, for example, by building on the local decision making structures, incorporating local knowledge, and devolving project management

responsibilities to the local organizations or communities as the project approaches closure
- Building partnerships among different project stakeholders
- Fulfillment of commitments to local stakeholders and stakeholders considered to be adequately involved.

Sustainability measures the extent to which benefits continue, within or outside the project domain, from a particular project or program after GEF assistance/external assistance has come to an end. Relevant factors to improve the sustainability of project outcomes include:

- Development and implementation of a sustainability strategy**.**
- Establishment of the financial and economic instruments and mechanisms to ensure the ongoing flow of benefits once the GEF assistance ends (from the public and private sectors, income generating activities, and market transformations to promote the project's objectives).
- Development of suitable organizational arrangements by public and/or private sector**.**
- Development of policy and regulatory frameworks that further the project objectives**.**
- Incorporation of environmental and ecological factors affecting future flow of benefits.
- Development of appropriate institutional capacity (systems, structures, staff, expertise, etc.) **.**
- Identification and involvement of champions (i.e. individuals in government and civil society who can promote sustainability of project outcomes)**.**
- Achieving social sustainability, for example, by mainstreaming project activities into the economy or community production activities**.**
- Achieving stakeholders consensus regarding courses of action on project activities.

Replication approach, in the context of GEF projects, is defined as lessons and experiences coming out of the project that are replicated or scaled up in the design and implementation of other projects. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources). Examples of replication approaches include:

- Knowledge transfer (i.e., dissemination of lessons through project result documents, training workshops, information exchange, a national and regional forum, etc).
- Expansion of demonstration projects.
- Capacity building and training of individuals, and institutions to expand the project's achievements in the country or other regions.
- Use of project-trained individuals, institutions or companies to replicate the project's outcomes in other regions.

Financial Planning includes actual project cost by activity, financial management (including disbursement issues), and co-financing. If a financial audit has been conducted the major findings should be presented in the TE.

Effective financial plans include:

- Identification of potential sources of co-financing as well as leveraged and associated financing[1].
- Strong financial controls, including reporting, and planning that allow the project management to make informed decisions regarding the budget at any time, allows for a proper and timely flow of funds, and for the payment of satisfactory project deliverables
- Due diligence due diligence in the management of funds and financial audits.

Co financing includes: Grants, Loans/Concessional (compared to market rate), Credits, Equity investments, In-kind support, Other contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector and beneficiaries. Please refer to Council documents on co-financing for definitions, such as GEF/C.20/6.

Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector. Please briefly describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective.

Cost-effectiveness assesses the achievement of the environmental and developmental objectives as well as the project's outputs in relation to the inputs, costs, and implementing time. It also examines the project's compliance with the application of the incremental cost concept. Cost-effective factors include:
- Compliance with the incremental cost criteria (e.g. GEF funds are used to finance a component of a project that would not have taken place without GEF funding.) and securing co-funding and associated funding.
- The project completed the planned activities and met or exceeded the expected outcomes in terms of achievement of Global Environmental and Development Objectives according to schedule, and as cost-effective as initially planned.
- The project used either a benchmark approach or a comparison approach (did not exceed the costs levels of similar projects in similar contexts

Monitoring & Evaluation. Monitoring is the periodic oversight of a process, or the implementation of an activity, which seeks to establish the extent to which inputs, work schedules, other required actions and outputs are proceeding according to plan, so that timely action can be taken to correct the deficiencies detected. Evaluation is a process by which program inputs, activities and results are analyzed and judged explicitly against benchmarks or baseline conditions using performance indicators. This will allow project managers and planners to make decisions based on the evidence of information on the project implementation stage, performance indicators, level of funding still available, etc, building on the project's logical framework.

Monitoring and Evaluation includes activities to measure the project's achievements such as identification of performance indicators, measurement procedures, and determination of baseline conditions. Projects are required to implement plans for monitoring and evaluation with adequate funding and appropriate staff and include activities such as description of data sources and methods for data collection, collection of baseline data,

[1] Please refer to Council documents on co-financing for definitions, such as GEF/C.20/6. The following page presents a table to be used for reporting co-financing.

and stakeholder participation. Given the long-term nature of many GEF projects, projects are also encouraged to include long-term monitoring plans that are sustainable after project completion.

Financial Planning Cofinancing

Co financing (Type/Source)	IA own Financing (mill US$)		Government (mill US$)		Other* (mill US$)		Total (mill US$)		Total Disbursement (mill US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
– Grants										
– Loans/Concessional (compared to market rate)										
– Credits										
– Equity investments										
– In-kind support										
– Other (*)										
TOTALS										

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

Leveraged Resources

Leveraged resources are additional resources—beyond those committed to the project itself at the time of approval—that are mobilized later as a direct result of the project. Leveraged resources can be financial or in-kind and they may be from other donors, NGO's, foundations, governments, communities or the private sector. Please briefly describe the resources the project has leveraged since inception and indicate how these resources are contributing to the project's ultimate objective.

ANNEX II – ITINERARY

Date	ACTIVITIES	PARTICIPANTS	REMARKS
Tuesday 13	Arrival Havana	Evaluation Team	Transfer to the hotel in Havana City
Wednesday 14	**Session I**: Administrative arrangements and working at the Project office. **Session II**: Arrangements and interview. **Session III**: Continuation of working at the Project office	**Session I:** Technical Staff of the Project **Session II**: UNDP Havana –Bruno Moro/Tony Perera- and Cuban Ministries Authorities (MINVEC, Ministry of Science, Technology and Environment, Environment Agency). **Session III:** Technical Staff of the Project	**SESSION I: 8:30 A.M. – 12:30 A PM** **Session II: 2 – 4:30 p.m.** **Session III: 4:30 - 6:30 p.m.**
Thursday 15	**Session I**: Interview with Helen Negret UNDP/GEF Regional Coordination Unit. **Session II**: Interview with the Directorate of Environment (Ministry of Science, Technology and Environment). **Departure to Camagüey province (flight Havana - Camagüey)**	Staff of the Project	**SESSION I: 8:30 A.M. – 10: 30 A.M.** **Session II: 11:00 - 12:15 p.m.** **2:30p.m . – leave for airport**
Friday 16	**Camagüey Province** Visit to Sabinal Monitoring Station and Río Máximo Wildlife Refuge. Transportation (by car) to Cayo Coco.	Director and Scientific Advisers of the Project, Provincial Staff of Project.	Resting in hotel at Cayo Coco
Saturday 17	**Ciego de Ávila Province** (Cayo Coco). Interview with the provincial staff of Project, visit to Coastal Research Center, and visit to Meliá hotel. Return to Havana (by car)	Director and Scientific Advisers of the Project, Provincial Staff of Project, staff of hotels	
Sunday 18	Working on the Report		
Monday 19	**Matanzas Province** Visits to Project Office, Laboratory, Varadero Beach marina, and	Director and Scientific Advisers of the Project, Provincial Staff of Project	Resting in hotel at Caibarién City.

Tuesday 20	Visit to "Las Brujas" tourist center, and Caibarién Monitoring Station, Villa Clara province. Meeting with Local Government Caibarién municipality.	Director of Project, Advisers, Provincial Staff of Project	Resting in hotel at Sancti Spíritus City.
Wednesday 21	**Session I**: Interview with Director of the Cuban Environmental Fund. **Session II**: Discussions with Project Coordination Unit **Session III**: Interviews with representatives of tourism, fisheries, and planning.	**Session I**: Environmental Fund Director **Session II** – Project Coordination Unit. **Session III** – Representatives of Planning, Fisheries, and Tourism	
Thursday 22	Working on the Report		
Friday 23	**Session I**: Discussion of Report with Project Coordination Unit **Session II**: Presentation and discussion of Draft Report; Teleconference with Helen Negret, UNDP.	**Session II**: Project Coordination Unit; UNDP Havana Office Authorities, staff of the Project, representatives of the ministries responsible for environment and for technical cooperation	
Saturday 24	Team Members return to their respective countries		

ANNEX IV – LIST OF PERSONS INTERVIEWED

No.	NAMES	POSITION	INSTITUTION
	NATIONAL PROJECT STAFF (14 JULY)		
1	Mercedes Arellano Acosta	Directora del Proyecto	Agencia de Medio Ambiente
2	Pedro M. Alcolado Menéndez	Asesor Biodiversidad Marina	Instituto de Oceanología
3	Elisa Eva García Rivera	Asesora Biodiversidad Terrestre	Instituto de Ecología y Sistemática
4	Natalia Polanco Domínguez	Administradora General del Proyecto	Agencia de Medio Ambiente
5	Herminia Serrano Méndez	Jefe Proyecto Capacidad 21	Agencia de Medio Ambiente
6	Tatiana Geler Roffe	Resp. Sistema Información Ambiental	Instituto Geografía Tropical
7	Leda Menéndez Carrera	Jefa Objetivo Biodiversidad Terrestre	Instituto Ecología y Sistemática
8	Julieta Gutiérrez Hernández	Resp. Sistema Información (METADATOS)	Instituto de Oceanologia
9	Marta Martínez Canals	Objetivo Biodiversidaad Marina	Institituto de Oceanología
	MINISTRY OF SCIENCE TECHNOLOGY, AND ENVIRONMENT (CITMA) (15 JULY)		
10	Teresa Cruz	Vicedirectora Dirección de Medio Ambiente	CITMA
11	Anyeli López	Especialista Manejo Integrado Costero	CITMA
	CAMAGÜEY PROVINCE (16 JULY)		
12	Marta González Díaz	Coordinadora Provincial Proyecto SC	
13	José Morales Leal	Director Area Protegida R.F. Río Máximo	Empresa Nacional Protección Flora y Fauna
14	Loidy Vázquez Ramos	Especialista Objetivo 3 Proyecto	R.F. Río Máximo, Emp. Protec. Flora y Fauna
15	Ana Ma. Rodríguez	Especialista Empresa Pesquera Municipal	Ministerio Industria Pesquera
16	Luis Gómez Rivera	Vicepresidente Gobierno Municipal	Organos del Poder Popular
17	Magaly Rodríguez Coto	Vicepresienta Gobierno Municipal Céspedes, Provincia Camagüey	Organos del Poder Popular
18	Irma Martín Sánchez	Resp. Objetivo 3 y Capacidad 21, Municipio Céspedes, Provincia Camagüey	CITMA
19	Carmen Mambrides Cabrera	Resp. Obj. 3 y Capacidad 21, Municipio Céspedes, Provincia Camagüey	CITMA
20	Nereyda Junco Garzón	Coordinadora Objetivo 1, Proyecto	CITMA
21	José Jomarrón Garrido	Capacitador (Módulos) Capacidad 21	CITMA
22	Tania Cardoso Hurtado	Coordinadora Provincial Capacidad 21	CITMA
23	Aray Rodríguez Díaz	Coordinadora Objetivo 3 Proyecto	CITMA

24	Yanitze Talda Morales	Capacitadora (Módulos) Capacidad 21	CITMA
25	Juan C. Reyes Vázquez	Coordinador (Objetivo 2, Proyecto	CITMA
	CIEGO DE AVILA PROVINCE (17 JULY)		
26	Celso Pazos Alberdi	Coordinador Provincial Proyecto SC, Delegado Provincial CITMA	CITMA
27	Raúl Gómez Fernández	Director CIEC	CITMA
28	Rolando Barroso Vargas	Inspector Ambiental	CITMA
29	Omar J. Fernández Pérez	Buró Información Científico Técnica	CITMA
30	María del C. Olivera	Directora Provincial Medio Ambiente	CITMA
31	Adán Zúñiga Reis	Sub-Director CIEC	CITMA
32	Claudio Alonso Herrera	Coordinador Obj.1, Proyecto CIEC	CITMA
33	Fabián Pina Amargós	Cordinador Obj. 2, Proyecto, CIEC	CITMA
34	Luis M. Batista Tamayo	Especialista (Coord.) Monitoreo, Proy. CIEC	CITMA
35	Vicente Osme Rodríguez	Coordinador Obj. 3, Proyecto, CIEC	CITMA
36	Pedro E. Cardoso Gómez	Coordinador Capacidad 21, Proyecto, CIEC	CITMA
	MATANZAS PROVINCE (19 JULY)		
37	Angel Alfonso Martínez	Coordinador Provincial Proyecto SC	CITMA
38	Nelvis Gómez Campos	Jefa Monitoreo Biodiversidad Proyecto	CITMA
39	Frank Huesta López	Objetivo 3 y 4 (Capacidad 21).	Escuela Hotelería y Turismo Varadero
40	Mario Luis Moreno de León	Programa de MIC, Objetivo 3 y 4.	Delegación Provincial Ministerio Turismo
41	Froilán Dueñas Pérez	Coordinador Objetivo 3 y 4	CITMA
42	Leiset Pérez Fernández	Especialista Colaboración Internacional	CITMA
43	Ana Elena Hernández Vega	Especialista Colaboración Internacional	Delegación Provincial Ministerio Cooperación
44	Xiomara Guedes Sanabria	Especialista en Medio Ambiente	Empresa Petróleo Centro (EPEP)
45	Yodalis Hernández	Grupo de Negocios	EPEP
46	Damaris Rodríguez González	Jefe Gpo. Seg. Ind. Salud y Medio Ambiente	EPEP
	VILLA CLARA PROVINCE (20 JULY)		
47	Alfredo Nieto Dopico	Coordinador Provincial Proyecto SC	CITMA
48	Angel Quirós Espinosa	Especialista Proyecto Villa Clara	CITMA
49	Luis Lecha Estela	Dtor. Centro Est. Ambientales Provinciales	CITMA
50	Edwin Ruiz Rojas	Jefe Estación Monitoreo Proyecto SC	CITMA
51	Orelbe Ramos Quintanilla	Especialista Colaboración Internacional	Delegación Provincial Ministerio Cooperación
52	Ernesto Toledo	Vicepresidente	Gobierno Municipio Caibarién
53	Maritza Lauzuregui Rodríguez	Asesora Mpal. Ciencia, Tecn. y M. Ambiente	Gobierno/CITMA
54	Aleida Duque	Espec. Educ. Amb. Mpal. Proyecto	CITMA
55	Ismael Santos Abreu	Vice Coordinador Provincial Capacidad 21	CITMA
56	Marisabel Rodríguez Abdul	Coordinadora Provincial Capacidad	CITMA

		21	
57	Rogelio Mena Rojas	Centro de Servicios Ambientales	CITMA
58	Gabriel Alemany Serafín	Espec. Gestión Ambiental	CITMA
	PRODUCTIVE SECTORES (21 & 22 JULY)		
59	Gisela Alonso Domínguez	Presidenta Agencia de Medio Ambiente	CITMA
60	Carlos Carlés	Vice Director de Pesquerías, Centro Investigaciones Pesqueras	Ministerio Industria Pesquera
61	Gonzalo Ríos Andrés	Director de Desarrollo	Ministerio del Turismo
62	José Mena Alvarez	Director de Turismo, Instituto de Planificación Física	Ministerio de Economía y Planificación
MEETING TO PRESENT THE PRELIMINARY CONCLUSIONS OF THE EVALUATION (23 JULY)			
63	Gisela Alonso Domínguez	Presidenta Agencia de Medio Ambiente	CITMA
64	María Elena Rodríguez	Directora de Programas y Proyectos	Agencia de Medio Ambiente, CITMA
	Además del staff del Proyecto y Antonio Perera		

V – LIST OF DOCUMENTS REVIEWED

Bensted-Smith, Robert, Emilio Ochoa Moreno, and Roberto Pérez de los Reyes. 2003. *Evaluación de Medio Término, Proyucto de Acciones Prioritarias para Consolidar la Protección de la Biodiversidad en el Ecosistema Sabana - Camagüey.*

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_____. Undated. *Amenazas a la biodiversidad en el ecosistema Sabana- Camagüey y sus causas subyacentes. Metodología del análisis multicriterio.*

_____. Undated. *Situation of protected areas of the ESC.*

_____*.* Undated. *Esquema conservación de la biodiversidad; habitats con interes de conservación para todo el ecosistema Sabana-Camagüey.*

_____. Undated. *Ideas de proyectos de seguimiento del taller de instrumentos económicos verdes ene el desarrollo e implementación de políticas ambientales.*

_____. Undated. *Proyecto PNUD/GEF Sabana - Camagüey, Fase II: Principales indicadores de impacto.*

_____. Undated. *Proyecto PNUD/GEF Sabana - Camagüey, Fase II: Consultorias recibidas.*

_____. Undated. *Tallleres Dearrollados por el Proyecto Sabana - Camagüey, Fase II:*

_____. Undated, *Marco lógico del Proyecto PNUD/GEF Sabana - Camagüey.*

_____. Undated. *Sabana - Camagüey Project, Statistical summary of capacity building and institutional strengthening (2000-2004).*

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_____. Undated. D*ocumentos generados por el proyecto.*

_____. Undated. *Informes técnicos administrativos desarrollados por el Proyecto Sabana - Camagüey.*

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