**BRA/07/G32**

**Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil PIMS 3280 –Atlas Project 000559992**

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**MINISTRY OF THE ENVIRONMENT**

**CHICO MENDES INSTITUTE FOR BIODIVERSITY CONSERVATION – ICMBIO**

**MID-TERM EVALUATION REPORT**

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| Implementing agency: | Chico Mendes Institute for Biodiversity Conservation (ICMBio) |
| Duration: | 5 years, from 2009 to 2013 |
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| National Director:  National Coordinator: | João Arnaldo  Adriana Risuenho |

1. **Project BRA/07/G32 – Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil - PIMS 3280 – Atlas Project 000559992**

Project BRA/07/G32 has contributed to promote the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and for the well being of coastal communities. The Project has generated both the strengthening of management in protected areas, as well as supported traditional populations in consolidating a new economic development paradigm, based on the sustainable use of natural resources, respecting different ways of life.

The Project was created to be executed by the Ministry of the Environment (*Ministério do Meio Ambiente – MMA*) in cooperation with the Brazilian Institute for the Environment and Natural Renewable Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMA*) and the Chico Mendes Institute for Biodiversity Conservation (*Instituto Chico Mendes de Conservação da Biodiversidade – ICMBio*), with the United Nations Development Programme (UNDP) as the implementing agency.

The MMA, jointly with ICMBio, after discussions and consensus on the relevance of the Project, decided to adjust the implementation arrangements in order to make possible a decentralized execution of the activities referring to the environmental policies of the Conservation Units (*Unidades de Conservação* – UC), thus making ICMBio the executing agent of the Project. With this change, the Project Document (PRODOC) was signed on July 31, 2008.

On that occasion, given the recent creation of ICMBio (April 2007), combined with the phase of transition and transferring of attributions and functions, Project BRA 07/G32 was postponed to being in 2009.

This report is the result of the Mid Term Evaluation (MTE), carried out by two national consultants, between November of 2012 and April of 2013, in the fourth year of the Project, and another consultant that consolidated the data and supported substantial revision. The objective of the MTE was to strengthen adaptive management and monitoring of the Project’s actions and of other similar projects, seeking to identify potential problems in planning, evaluate the progress towards the objectives and recommend specific actions that can improve performance, identifying success points as well as weaknesses and indicating necessary adjustments.

1. **Executive Summary**

* Brief Description of the Project

Mangroves constitute themselves in one of the most productive ecosystems of the planet, contributing to global biodiversity and ensuring their integral environmental part in coastal areas. They are responsible for providing environmental resources and services that sustain economic activities. The role played by mangroves in the increased resiliency to climate change of ecosystems, communities, and coastal economic activities is increasingly recognized.

Despite their importance, mangroves in Brazil are vulnerable to anthropogenic threats. Although Brazil has built and implemented a normative and institutional framework that is quite broad, and aims to ensure mangrove conservation through a protected areas approach, the systems are permeated with deficiencies that act as barriers to effective protection of this ecosystem. These deficiencies are translated into the loss of mangrove habitats and the reduction in the offer of resources upon which many communities and sectors depend.

This Project proposes to confront these deficiencies, adapting existing management tools for protected areas under the National System of Conservation of Nature Units (*Sistema Nacional de Unidades de Conservação da Natureza – SNUC*) to the specific characteristics of mangrove ecosystems, and strengthening the capacity of implementation of these tools. Thus, it establishes minimal standards and most efficient approaches for the conservation and sustainable use of mangroves in the entire country.

The instruments in place should function as preparation for the operational consolidation of a subgroup of Protected Areas (PAs) with mangroves based on innovative approaches to management tested in the field, both for the category of management of sustainable use, as well as for the category of integral protection, promoting SNUC improvement.

The result should include direct benefits of conservation for 568 thousand hectares of mangroves of global relevance, positive impacts in the life of some of the poorest segments of Brazilian society, and the construction of a structure that will permit replication of lessons learned over the course of the project for all mangroves in Brazil and others around the world.

The long-term goal of the Project is the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and welfare of coastal communities.

The objective of the project is to contribute to this goal through a strategy of management of protected areas tested *in situ*, to be adopted for effective conservation of a representative sample of mangrove ecosystems in Brazil.

This objective should be met through four results:

1. The existence of a favourable environment for the implementation of a subsystem of PAs with mangroves, including financial, regulatory, and political mechanisms, which in turn will result in an environment that makes viable the implementation, sustainability, and replicability of the Project strategy;
2. The existence of replicable models for the management of mangrove resources in SNUC protected areas for sustainable use, through which environmental and poverty fighting issues will be addressed, with the goal of improving sustainability of ways of life;
3. Improved conservation of mangroves through conducting an alignment of UC management with special and sectorial planning, through a landscape-based approach, which will permit confronting barriers to the PA approach using a sectorial approach; and
4. An increase in inclusion, dissemination, and adaptive management activities related to mangroves. This result aims to increase monitoring and evaluation as well as the generation of information for mangrove adaptive and resource management.

The five pilot areas selected for intervention for the Project and their respective guiding principles 1are:

1. Pará: Salgado Paraense, with ecosystem management of fishing;
2. Maranhão: Reentrâncias, with territorial planning;
3. Piauí: Parnaíba Delta, with promotion of productive chains;
4. Paraíba: Mamanguape, with integrated management, involving water resources and Protected Area; and
5. São Paulo/Paraná, with territorial/spatial management and financial mechanisms.

The Project is being executed by the Chico Mendes Institute for Biodiversity Conservation (*Instituto Chico Mendes de Conservação da Biodiversidade – ICMBio*) at the central level and by its decentralized agencies and the United Nations Development Programme (UNDP) as the implementing agency of the Global Environment Facility (GEF).

* **Proposal and Objectives of the Mid Term Evaluation**

The proposal of the Mid Term Evaluation (MTE) is based on the identification and documentation analysed that provide inputs to the study on lessons learned and recommendations for greater efficiency in the Project’s implementation.

The goal of the MTE was to strengthen adaptive management and monitoring of the Project’s actions and other related projects. It also aimed to promote institutional accountability through attaining the objectives of the Global Environment Facility (GEF).

This evaluation document is presented in three principal sections:

1. The context of the Project development, lessons learned in the formulation of the Project, the assumptions and risks taken on, the lessons that arose from other projects, the participation of local actors;
2. The implementation of the Project with its products and results; and
3. Conclusions and recommendations.

The Project Document (PRODOC) was analysed in terms of logical structure, objectives, indicators, and goals, as well as explicit activities as means to attain objectives, the presented risks, the budget and disbursements, as well as duration time of Project and the need for extension of this time.

The analysis of the document raised key questions that will be responded with regards to the relevance, effectiveness, efficiency, sustainability, and impact of the Project.

* **Mid Term Evaluation Methodology**

The methodology of evaluation consisted of the analysis of the Project documents and a literature review relative to mangrove ecosystem ecosystems. The interviews were carried out by those responsible for the Project, at a central as well as local level, with actors form communities and institutional representatives. Baseline and comparative data derived from the METT studies carried out in 2007 and 2012 were analysed to verify the efficacy of management of protected areas with mangroves, previously selected.

The data were systematised and analysed, after which the Project’s mid term evaluation report was written.

* **Principal Results of the Project**

**Result 1.** Supportive environment for a subsystem of protected areas of mangroves implemented, including financial, regulatory, and political mechanisms.

**Product 1.1.** Regulatory frameworks and corresponding operational guidelines developed for the better management of protected areas with mangroves.

**Product 1.2**. Procedures and institutional capacities aligned with the new regulatory framework for mangrove management, and coordinated with sectorial policies.

**Product 1.3.** Financial strategies for the management of protected areas with mangroves tested and supported by the regulatory framework.

**Product 1.4.** Representative network of UCs harbouring mangroves, elaborated under the existing protected areas system.

**Product 1.5.** National Plan for the Conservation and Sustainable Use of Mangroves developed and formalized.

**Result 2.** Replicable models installed for the management of mangrove resources in the UCs for sustainable use for SNUC.

**Product 2.1.** Resource management plan for fishing created at the level of the ecosystem to group together protected areas in Pará.

**Product 2.2.** Resource management plan for the uçá crab created and tested in the Parnaíba Delta.

**Product 2.3.** Mangrove products with aggregated value identified and potential market opportunities explored.

**Product 2.4.** Capacity-building program concluded to facilitate the implementation and replication of approaches for sustainable use of resources from protected areas with mangroves.

**Result 3.** Improvement in conservation of mangroves in order to conduct alignment of UC management with sectorial and spatial planning.

**Product 3.1.** Guidelines for land regulations adjusted for the conservation of mangroves developed and tested in a large APA and coordinated with state and regional planning processes.

**Product 3.2.** Processes for water resource management in Paraíba developed and tested to include the needs for mangrove conservation.

**Product 3.3.** Capacity building program elaborated and in implementation for relevant planning institutions, sectorial actors, and UC direction.

**Result 4.** Inclusion, dissemination, and adaptive management related to mangroves increased.

**Product 4.1.** Program for Biodiversity Monitoring for Mangroves created and operational.

**Product 4.2.** Management and Monitoring of the Project.

**Product 4.3.** Dissemination, inclusion, and research on Mangrove Ecosystem Management distributed to the community, sectorial actors, and to the public in general.

**Result 5.** Management.

**Product 5.1.** Administrative Assistance to the Project.

**Product 5.2.** Technical Assistance to the Project.

* **Challenges and Successes in the Execution of Project BRA 07/G32**

*Principal Threats to Mangrove Biodiversity*

It is estimated that 25 per cent of Brazilian mangroves have been destroyed. Many of those that still exist are classified as vulnerable or threatened with extinction. The transformation of the habitat has occurred due to the loss and fragmentation of vegetal covering and the deterioration of aquatic habitats because of pollution and changes in hydrodynamics, which creates inhospitable environments for species and consequent reduction and loss of ecosystem services that they offer.

*Threats and its vectors are relative to some practices such as:*

**1 - Aquiculture:** shrimp farming; water pollution by chemical spills; the increase in competition among exotic and endemic species of the fauna; the introduction of pathogenic and parasitic agents; and the genetic alterations in the local fauna by exotic species.

**2 – Fishing industry**: The increase in fishing creates pressure on estuaries and associated mangrove ecosystems, which threatens a few species, such as the *uçá* crab (*Ucides Cordatus*).

**3 – Agriculture:** rice and sugar cane are the principal agricultural products planted in the micro-watersheds along the coast.

**4 – The construction of urban, industrial, and tourism-related facilities**: real estate speculation puts pressure on mangrove areas in order to explore modern enterprises.

**5 – Wood**: wood extraction does not observe sustainable levels or techniques for extraction and barely takes into account forest management plans.

**6 – Climate change**: The forecasts for climatic variability with the increase in frequency of storms, changes in currents caused by climate change and increase in sea level point to threats.

**7 – Underlying causes of threats:** the underlying causes of these threats are related to deficiencies in policies, regulations, and institutional capacity. The most critical are:

* The Environmental Licensing System (*Sistema de Licenciamento Ambiental*), both federal as well as through state environmental organizations;
* Capacity for licensing and oversight, federal and state;
* Sectorial participation in licensing processes;
* Planning at the level of landscapes and development.

Not only do productive sectors not consider the importance of mangroves, service producers do, as well. The water resource sector also has not considered the mangrove as it should, though some water conservation instruments have been created by the National Water Agency (*Agência Nacional de Águas – ANA*)

* **Table of Evaluation of Products and Results**

The following evaluation table lists the specific abbreviations in the document UNDP Evaluation Guidance for GEF-Financed Projects: Version for External Evaluators, final memorandum of March 17, 2011. For the items Monitoring and Evaluation, Execution by Implementation and Execution Agencies, Catalytic Role, and General Results of the Project, the grades given were *Moderately Unsatisfactory* and *Unsatisfactory*; for Sustainability, *Moderately Unlikely* e *Unlikely*. These criteria are placed in the items shown in the Table of Evaluation of Products and Results.

|  |  |
| --- | --- |
| **Item** | **Grade** |
| **Monitoring and Evaluation** |  |
| General quality – monitoring and evaluation | U |
| Initial design – monitoring and evaluation | U |
| Implementation of monitoring and evaluation plan | U |
| **Execution by Implementation and Execution Agencies** |  |
| General quality of Project implementation and execution | MS |
| Execution by Implementing Agency | S |
| Execution by Execution Agency | MS |
| **Outcomes** |  |
| General quality of Project results | MS |
| Relevance | HS |
| Effectiveness | MS |
| Efficiency | MU |
| **Catalytic Role** |  |
| Production of a public good | S |
| Demonstration | MS |
| Replicability | S |
| Application at a larger scale | U/A |
| **Sustainability** |  |
| General probability of risks to sustainability | MU |
| Financial | MU |
| Socioeconomic | MU |
| Institutional and governance framework | MU |
| Environmental | UM |
| General Project Results | UM |

* **Recommendations**

In order to implement the activities achieve proposed results by the Project Document “Mangroves in Brazil,” it is recommended the Project:

1. Extend the deadline for effective development of priority activities, a timeline be established, and timeline and execution be rigidly followed.

With regards to the implementation of **Proposed Plans and Programs**, it is recommended that:

1. Conclude and implement the Plan of Action for the Conservation of Threatened Species and the Socioeconomic Importance of the Mangrove Ecosystem on the Brazilian Coast (PAN Manguezal) in the following areas:

* Southern and South-eastern Region;
* North-eastern Region and the state of Espírito Santo; and
* Coastal Northern Region.

1. Conclude the Integrated Management Plan for Fishing Resources with focus on the ecosystem for the 9 (nine) Extractive Reserve marines (RESEX), following its analysis and implementation.
2. Promote and strengthen inter-institutional partnerships in order to create the Management Plan for Water Resources for the Mamanguape Pilot Area, looking to reduce political and institutional risks that could make investments that contribute to the conservation and sustainable use of mangrove ecosystems unviable.
3. Create and amply disseminate the Management Plan for the *Uçá* crab.
4. Implement Business Plans for Mangrove Resources, and carry out procedures such as a diagnostic for business opportunities with mangrove biodiversity products.
5. It is recommended, above all, that the Project give support for the implementation of Business Plans for Mangrove Resources, since implementation is at least as important, if not more important, as the conclusion of the Business Plan. The implementation requires the study not only of economic viability but also of commercialization conditions for the products. As such, the actions of the plans for the *Uçá* crab (management and business) should transcend the Parnaíba Delta area, since replicability is important and desirable, both as a PRODOC requirement as well as an identified socioeconomic demand.
6. Create and implement the National Mangrove Program. It is recommended that, when created and in implementation, it is important that managers are attentive to the establishment of agreements with states for implementation, thus fulfilling PRODOC requirements.
7. With regards to the actions with the pilot areas the results of workshops in 2012 and 2013 as well as the pre-evaluation of the project (February 2013) are considered, in which results indicated low performance in the planned activities in the Reentrancias Maranhences Pilot Area, it is recommended that:

* An immediate decision be made about the pending issues relative to this area, since its low performance has meant consequences for the management of the whole ecosystem.
* In addition, an appropriate ecological economic zoning opportunity that would bring benefits to other areas and the management of this instrument has been lost.

1. Create and implement a Communication, Publication, and Dissemination Plan for the Project’s Actions. This initiative should increase visibility and recognition of the relevance of the ecosystem, as already mentioned.

1. With regards to a space that provides continuity to the discussions on mangrove ecosystem issues, it is recommended that:

* Alternative spaces and information and decision receptors on mangroves be created, such as the creation of a Thematic Group already proposed in the conclusion.
* With regard to the legal and regulatory framework of the conservation and sustainable use of mangroves at the federal, state, and local level, it is recommended that we remain attentive to the periodical improvement of these items.

1. Considering the existence of financial resources already available for the activity of reconciliation between management instruments for water and the mobilisation of state, regional, and local partners, it is recommended that:

* The Technical Councils for Pilot Areas (CTAPs) be strengthened and fostered, strengthening the link between Water Resources and the CTAPs/UCs.
* Technical-financial performance around these issues be bolstered, since there is evidence of the impact that bad-quality management of water resources can have on mangroves and verifying the loss of habitat quality of species threatened with extinction, such as the manatee.

1. With regards to Territorial Monitoring, Evaluation, and Management, it is recommended that:

* The proposal for biodiversity for federal UCs with mangroves be concluded and analysed, and technical support be provided for the program’s implementation phase.
* Forms for management be established, with a modern and participatory approach, such as co-management and integral territories complemented by practice and learning communities that offer solutions to the complex problems of articulation among government entities and levels, and procedures of results-oriented management be established as well.
* Permanent monitoring and evaluation systems for learning and control be established, utilising IT tools in an efficient, transparent, and amicable manner.

* Efficient monitoring and mangrove control instruments that promote more attention to the monitoring system for reduction of risks for mega-enterprise introduction be established, with collaborative action from a Thematic Group at ICMBio.
* Digital geospatial tools be utilised to facilitate territorial management, whether with regards to conflict management or different types of soil and natural resource use.

1. With regards to administrative and institutional considerations, it is recommended that the Project should:

* Follow an Acquisitions Plan, both for materials as well as for human resources, in order to improve Project performance, given the characteristics of the institutional staff as has already been mentioned. This plan should be linked to the expected results of the Project.
* Strengthen the executing agency with the incorporation of qualified and dedicated full-time personnel for the Project, for a higher level of institutional involvement, which results in continuity and institutionalisation of actions.
* Define financial strategies for conservation and sustainable use of mangrove ecosystems through strengthened institutional partnerships and promote, where possible, decentralised management technical and financial decisions
* Establish more efficient administrative and financial mechanisms for obtaining better operational, technical, and financial operational performance, with transparency, consolidation, and communication of data and results.
* Determine the use of GEF administrative-financial tools for the Mangroves Project in Brazil. These already-consolidated instruments provide conditions for registration and monitoring, reducing the risks of impact on financial sustainability and Project continuity (PoA, Operational Manual, and co-financing).

* Determine preparation quite early for the whole team for the undertaking of the final evaluation and the application of the third stage of the Management Effectiveness Tracking Tool (METT), taking advantage of its results as ones that can orient processes and decision-making.

**iii. List of Acronyms and Abbreviations**

AP Protected Area or Protection Area

APA Environmental Protection Area

ARIE Area of Relevant Ecological Interest

ARPA Program for Protected Areas in Amazônia

AUREMAG Ciruçá Great Mother Association

CAPAM Centre for Support for Maranhão Artisanal Fishers

CIP Cananéia-Iguape-Peruíbe

CNPT National Socio-biodiversity Centre for Research and Conservation

CNS National Council for Extractive Populations

CO Country Office

CTAP Technical Council for Pilot Area

D.O.U. Official Federal Newspaper

EMATER Technical Assistance and Rural Extension Agency

EMBRAPA Brazilian Agricultural Research Agency

GEF Global Environment Facility

GEPPAM Federal University of Pará Group for the Study of Landscape and Environmental Planning

GERCO National Plan for Coastal Management

IBAMA Brazilian Institute for the Environment and Natural Renewable Resources

ICMBio Chico Mendes Institute for Biodiversity Conservation

ICMS-E Tax on Circulation of Ecological Goods and Services

IFPB Paraíba Federal Institute for Education, Science, and Technology

INCRA National Institute of Colonisation and Agrarian Reform

MA Maranhão

MDA Ministry of Agrarian Development

METT Management Effectiveness Tracking Tool

MMA Ministry of the Environment

OEMA State Organ for the Environment

NGO Non-Governmental Organisation

SCO Civil Society Organisation

PA Pará

PB Paraíba

PI Piauí

PIF Project Identification Form

UNDP United Nations Development Programme

POA Annual Operational Plan

PR Paraná

RAPPAM Quick Evaluation and Prioritisation for Protected Area Management

RESEX Extractive Reserve

SEAIN Secretary for International Affairs

SEBRAE Brazilian Micro and Small Business Support Service

SEGAP System for Management Information and Project Monitoring

SIGMA System for Environmental Management Information

SIGPLAN System for Management and Planning Information

SNUC National System for Nature Preservation Areas

SP São Paulo

SUDEMA Paraíba Environmental Administrative Superintendent

UC Protected Area

UFPA Federal University of Pará

UFMA Federal University of Maranhão

UGP Project Management Unit

**Project BRA/07/G32 – Conservation and Sustainable Use of Mangrove Ecosystems in Brazil**

**(PIMS 3280 – Atlas Project 000559992)**

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1. **Introduction**

The mangrove is considered a transitional costal ecosystem between terrestrial and marine environments. As it is characteristic of tropical and subtropical regions, it is subject to tidal regimes, with typical vegetal species that associate themselves to other vegetal and animal components.

The mangrove ecosystem is associated with the margins of bays, bars, inlets, river mouths, lagoons, and coastal inlets, where there is a meeting between river and seawater, or direct exposure to the coastline. The vegetal covering is installed in recently formed gradually sloped base covering, under the daily tidal action of salt or brackish water.

The biological wealth of coastal ecosystems means that these areas are huge natural nurseries, both for species characteristic of these environments, as well as for fish and other animals that migrate to coastal areas during at least one phase of their life cycle.

In Brazil, there are around 25,000 km2 of mangrove forest, which represent more than 12 per cent of all mangroves in the world. The mangroves are distributed from Amapá to Laguna, in Santa Catarina, on the Brazilian coast.

The mangrove fauna represents a significant source of food for populations of fishing communities. Stocks of fish and shellfish have significant biomass, and constitute excellent sources of animal protein of high nutritional value. Fishing resources are considered essential to the subsistence of traditional populations along the coastal zone.

Considering the importance of the mangrove ecosystem, with regards to the set of biological and biotic components, physiography, ecology, diversity of flora and fauna, endemic biodiversity, coastal users of natural resources, and its cultural diversity is what the Project “Conservation and Sustainable Use of Mangrove Ecosystems in Brazil” was proposed for and is in execution, with funding from the Global Environment Facility (GEF).

The Project selected 5 (five) pilot areas in which to work:

1 - Salgado Paraense;

2 - Reentrâncias Maranhenses;

3 - Parnaíba Delta;

4 - Barra do Mamanguape; and

5 - Grouping in SP/PR.

The Preservation Areas (*Unidades de Conservação – UCs*) and pilot areas of the Project were selected based on the following set of criteria: biological diversity; biological significance; representativity and threat level; biological resources; possibility and pertinence of replication; level of human development; existing information and baselines on the location; and viability of intervention, based on the timeline and budget of the Project.

Through actions in these pilot areas, the Mangroves Project in Brazil intends to respond to four principal results:

1. The existence of a favourable environment for the implementation of a subsystem of Protected Areas (AP) with mangroves, including financial, regulatory, and political mechanisms;
2. The existence of replicable models for management of mangrove resources in protected areas and for sustainable use within the National System of Protected Nature Areas (*Sistema Nacional de Unidades de Conservação da Natureza – SNUC*);
3. A better conservation of mangroves through the conduction of an alignment of the management of UCs with spatial and sectorial planning;
4. The increase in activities of inclusion, dissemination, and adaptive management related to mangroves.

The project is executed by the Chico Mendes Institute for Biodiversity Conservation (ICMBio), in cooperation with the Ministry of the Environment (*Ministério do Meio Ambiente – MMA*), Fishing and Agriculture Ministry (*Ministério da Pesca e Aquicultura – MPA*) and the Brazilian Institute for the Environment and Renewable Natural Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMA*), with UNDP being the implementing agency for the Global Environment Facility (GEF).

* 1. **Purpose of the Mid Term Evaluation**

The objective of the present mid term evaluation is to strengthen adaptive management and monitoring of this and other related projects. It seeks to identify potential planning problems, evaluate progress towards the achievement of the objectives and recommend specific actions that can improve the Project, identifying signs of success or failure and indicating necessary adjustments.

Through the identification and documentation of lessons learned, the evaluation should also promote keys to organisational efficacy, better development of Project activities, including improvement of planning and the implementation of other projects. The report was presented at the meeting of a group composed of the Technical Regional Advisory (*Assessora Técnica* Regional – *ATR*) at a distance, and representatives from ICMBio and UNDP.

* 1. **Criteria for Evaluation and Key Questions to be Analysed**

The report follows that suggested structure in *UNDP Evaluation Guidance for GEF-Financed Projects* and analyses the forecasted five criteria of evaluation which are: relevance, effectiveness, efficiency, impact, and sustainability.

The general key question that permeates the document and is posed to respond to the proposition: how can we preserve and conserve natural resources from Brazilian mangroves, fostering social capital to promote welfare and human capital in a sustainable manner? Is the Project doing this?

In the past two decades, Brazil has stood out among countries for its efficient transformation of natural capital into human capital, being that the capital produced has remained basically stable. The Project has a relevant contribution to make for Brazilian policies for co-management and territoriality. The Institutions of Co-Management (*Instituições de Cogestão – ICGs*) exercise the representation of civil society in a democratic and continuous form, and the integral territories unify actors in larger spaces.

**Relevance:** relevance is evaluated with regards to the problem confronted, within the larger context of the country and world. Relevance is considered with regards to the “Inclusive Wealth Index,” a recent initiative of various programs and projects within the United Nations, which defines three categories of capital: natural, human, and produced. To these, it is convention to add a fourth category, social capital.

Do the Project’s conception and plans attend to the desires of humanity, the Brazilian people and its institutions, and traditional communities, as well as the planet’s ecological needs? Or, to cite the GEF Criteria for Evaluation Matrix, “What is the relation of the Project to the principal objectives of the focal areas of the United Nations Convention for Biodiversity and of GEF, as well as the environmental and developmental priorities on the local, regional, and national level?”

**Effectiveness:** This criterion analyses the reach of expected results and respective products, reflected in the contribution of the Project’s actions to develop capacities in the pilot areas, as expressed in the immediate objective of the Project.

The Management Effectiveness Tracking Tool (METT) was applied in the years 2006-7 and 2012, making it possible to measure some effects of the Project, although it captured very few positive changes in the pilot areas. The pertinence of this observation was verified through a triangulation process, comparing the findings with interviews and observations in the field and responses to the questionnaire.

Has the Project been achieving the forecast results and products, promoting capacity development? Or, “To what degree have or will have the expected results and objectives of the Project been achieved?”

**Efficiency:** Is the Project disbursing offered resources with a minimum of waste in order to reach the forecast results and products? Or, “Was the Project efficiently implemented, according to international and national norms and standards?”

**Sustainability:** Does the Project offer financial, institutional, and governance conditions to proceed in its efforts during and after the period of its execution? Do socioeconomic and environmental trends point to the continuation of conservation and sustainable development? What are the influences of the Project in this sense? Or, “Do conditions exist for the sustainability of the related benefits and results of the Project?”

**Impact:** Does the Project promote the preservation of ecological and cultural results, as well as biodiversity, at the same time in which it improves the socioeconomic situation of the population? Or, alternatively, “Results: what are the current and potential results, over the long term, of the activities supported by the Project?”

* 1. **Methodology utilised in the Evaluation of the Project**

Two consultants were contracted in November of 2002, being that Walker, R. was designated Consultant 1, directly responsible for the analyses related to the aspects of financial and administrative management and its sustainability and of the social area, and Borges, V.L., Consultant 2, for the other aspects of the Project. Kinzo, M.D., Consultant 3, was responsible for the general systematisation of the data about the Project actions, final consolidation of the data with contributions from the consultants, and the creation of the final write-up of the mid term evaluation final report.

In addition to the extensive literature review and documentation of the Project, interviews were carried out in Brasília and in the five pilot areas of the Project with *in situ* observations. The data taken in the field made it possible to ask objective questions with flexible formats. Baseline and comparative data derived from the METT and RAPPAM sources were also analysed and, in part, incorporated into the report. The pilot area coordinators were interviewed and contributed with information about the definitions of lessons learned and proposed recommendations.

The current and former actors with regards to the execution of the Project both at ICMBio as well as MMA and UNDP were interviewed. Other interviews were carried out with the Coordination for Support for Territorial Commerce and Business, part of the Ministry for Agrarian Development (*Ministério de Desenvolvimento Agrário – MDA*). In the states, managers for the pilot areas were interviewed, as well as other members of the Technical Council for the Pilot Area (*Conselho Técnico de Área Piloto – CTAP*), and local actors, such as professors.

The sets of records were adapted for each interview, highlighting the questions that came from the METT for the open interviews with pilot area managers. The questionnaires sought to collect the evaluations of the managers with regards to the achievement of objectives and expected results in the prospective areas.

In addition to the documentation of the Project, by UNDP and by various governmental organs, some academic documentation related principally to the Salgado Paraense and Reentrâncias Maranhenses areas also served as a base for the analyses carried out.

**Ethics**

The informants are not cited by name.

1. **Context and Development of Project BRA 07/G32**

Project BRA/07/G32, despite delays in implementation and having obtained partial results up until the present, has contributed to promote the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and for the welfare of coastal communities, in agreement with its objectives.

It is a fact that the Project has provided both strengthening of the management of these protected areas as well as supported the traditional populations in the consolidation of a new paradigm of economic development, based on the sustainable use of natural resources, respecting their way of life.

The Project was created to be executed by the Ministry of the Environment (*Ministério do Meio Ambiente – MMA*), in cooperation with the Brazilian Institute for the Environment and Natural Renewable Resources (*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMA*). However, with the creation of the Chico Mendes Institute for Biodiversity Conservation (*Instituto Chico Mendes de Conservação da Biodiversidade – ICMBio*), this agency became the executing agency and the United Nations Development Programme (UNDP) the implementing agency. With this, the Project Document (PRODOC) was signed on July 31, 2008.

On that occasion, given the recent creation of ICMBio (in April of 2007), combined with the transitional and transferring of attributions and functions phase, the start of Project BRA 07/G32 was postponed until 2009.

Thus, the Project was created and execution conceded to ICMBio in a specific socio-economic context and respecting the population that inhabits mangrove areas.

Brazil has a population of around 190 million, distributed in a territory of 8,514,215.3 km2. According to estimates, more than 20 per cent of the Brazilian population lives in a coastal zone representing more than 37 million people and a demographic density five times larger than the national average. A large part of the coastal population lives in cities and only 13 per cent of the population lives in rural areas and can be subdivided into agricultural, fishing, and traditional communities, including agro-extractivist populations.

A significant part of Brazilian GDP comes from the service sector of the largest cities, as well as tourism, industry, and oil, which are also concentrated around the largest urban areas of the coastal zone. Tourism has expanded beyond urban areas and in 2003 already represented 2.2 per cent of the national economy.

Shrimp farming is one of the activities that has most grown along the coast, in particular in the *tannes*, due to the availability of water and entrances to the ocean. Just between 1997 and 2003 the production of shrimp increased 97 per cent, with an annual average growth of 20 per cent in the total area of shrimp plantations. The activity, which initially was restricted to the states of Rio Grande do Norte and Ceará, expanded to Piauí and Maranhão. In 2005, shrimp farming represented 7.7 per cent of fishing products, contributing to place the country in 8th place among the largest producers of the world and generating more than US$270 million. Industrial fishing near mangrove areas is concentrated in the south of the country.

However, despite the spread of shrimp farming, its bases for growth have been constituted in such a way that greatly impacts mangrove areas.

Among the principal economic activities of traditional coastal communities, the utilisation of resources from mangroves stands out; this includes fishing, that is, crabs, oysters, and molluscs, the extraction of wood and some isolated cases of tourism and agricultural production. Artisanal fishing is substantial and these are the principal components of this activity. Despite the scarcity of data on fishing production in mangrove areas in Brazil, it is estimated that, in some states, the contribution of these ecosystems is almost 50 per cent of the total production of artisanal fishing.

In many locations, the income for traditional groups depends on the capture of the *uçá* crab. Crab fishermen are among some of the country’s poorest populations. The target regions of the Project in the North and Northeast of Brazil have some of the lowest Human Development Indices (HDI) in the country. Indeed, limited access of these communities to basic social benefits such as education, health, and housing, among others, contributes to its dependence on mangrove resources. For example, the education level of the crab fishermen rarely exceeds primary education, they usually have an average of four children, and a household income of about US $147 per month. These communities are economically marginalized in the sense that they are extremely poor, they are not recognized by the formal fishing settlements as artisanal fishermen, they typically do not have any record and therefore have no access to benefits that registered fishermen associated with formal colonies enjoy, including temporary unemployment insurance for seasonal periods, health insurance or retirement.

In general, primary fishing activities are traditionally performed by men. However, with the exception of shellfish, women collectors and/or seafood sellers, there is very little literature on the role of women in the fishing industry. This reflects certain socio-cultural aspects of these communities, where women can help men in salting the fish, preparing their nets, and even collecting clams and crabs, but they generally do not go out to sea because it is up to them to take care of the family and other domestic activities.

In this context, the activities of the Mangroves Project in Brazil have been executed in the selected pilot areas, seeking to link conservation of the mangrove ecosystem through the sustainable use of its habitat and the development of sustainable ways of life for the populations that live in these areas.

* **Immediate and Developmental Objective**

In place of the language of immediate and developmental objectives, the project document maintains the expressions of logical framework, currently agreed by UNDP in Brazil: general aim and purpose, where it refers to *impact* or important or lasting changes in people's lives and the environment, and this includes the majority of the goals that are expected to be achieved during the life of the Project, particularly capacity development, a means of achieving the desired impact and also an important goal in itself. We have:

**General objective**: Promote the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and the welfare of coastal communities;

**Purpose**: Adopt a management strategy for protected areas tested in the field for the effective conservation of a representative sample of the Brazilian mangrove ecosystem.

* 1. **Issues that the Project sought to Direct**

The role mangroves perform in the increase in the resilience of coastal ecosystems, communities, and economic activities to climate change is increasingly recognised.

Despite their importance, mangroves in Brazil are vulnerable to a series of anthropogenic threats. Although Brazil has constructed and implemented a skeletal structure for the protection of environments that is quite ample and seeks to ensure the conservation of mangroves through a protected areas approach, the transversal systems are permeated with institutional deficiencies and capacities that act as barriers to the effective protection of any ecosystem.

These deficiencies are translated into the loss of mangrove habitats and the decrease in the offer of resources of which many communities and sectors depend. However, the Project has managed to place focus on the problems in the most important areas for implementing conservation and sustainable use strategies.

It is important to emphasise that there is a lack of implementation of technological systems of management of natural resources threatened with extinction, such as the diffusion of new technologies for the sustainable management for crabs and fish.

On the other hand, it is necessary to do more work on problems related to mangrove management such as the forest system, and not just as a habitat and refuge for sea creatures, crustaceans, and fish. Problems such as these should be better treated with training programs in environmental education.

In this sense, the strengthening of management of the ecosystem based on the National System for Protected Areas (*Sistema Nacional de Unidade de Conservação – SNUC*) as a system for the management of natural resources in Brazil is strengthened through the ways of life of populations that live in those regions and that make use of those natural resources for their subsistence. This means that we must consider that sustainable production and management need to go together because they are not dissociable and they are interdependent.

However, a dynamic exists for mangroves that are independent of human action, such as, for example, the resulting alteration in water flows in deltas and mouths of rivers. Therefore, the Project can be a means of seeking to bring to society the comprehension of these natural biotic processes. In addition, the Project can be and, to a certain degree, has been the promoting link between the articulation of mangrove problems and those coming from problems relative to the use of soil and water resources.

The execution of Project BRA 07/G32, the Mangroves Project, contributes to the reduction of national and regional inequalities. Brazil, one of the most unequal countries in terms of income and socio-economic conditions, has systematically worked to reduce income inequality since the year 2000. The *Bolsa Família* program, a conditional cash transfer program, responds in part to the reduction of inequality. The *Bolsa Verde* program seeks to apply a similar principal in the environmental area and this program has three interfaces with the Mangroves in Brazil Project, principally those aspects around alternative methods for income generation and social promotion.

* 1. **Principal Actors Involved in the Project**

The principal actors, according to the PRODOC, are:

* Chico Mendes Institute for Biodiversity Conservation(ICMBio);
* Ministry of the Environment (MMA);
* Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA);
* National Centre for Sustainable Development for Traditional Populations (CNPT);
* National Agency for Water (ANA);
* Ministry for Agrarian Development (MDA);
* Secretariat for Familial Agriculture (SAF);
* Brazilian Agricultural Research Agency (EMBRAPA);
* Federal University of Maranhão (UFMA);
* Brazilian Micro and Small Business Support Service (SEBRAE);
* Secretariat for Science, Technology, and the Environment (SECTAM, state of Pará);
* Secretariat for the Environment and Natural Resources (SEMA/GEMA, state of Maranhão);
* Secretariat of the Environment and Natural Resources (SEMAR, state of Piauí);
* Secretariat of the Environment (SEMACE, state of Ceará);
* Spatial Secretariat of the Environment, Water, and Natural Minerals (SECTMA/SUDEMA, state of Paraíba);
* State Secretariat for the Environment (SEMA/IAP, state of Paraná);
* Local governments and communities within or close to protected areas;
* Representation of traditional populations (artisanal fishers, crab and clam fishers, small farmers).

1. **Principal Findings**

The Mid Term Evaluation identified as the principal findings and lessons learned some points that reinforce the relevance of the Project and the need for its continuation. Some continuing processes have been identified, based on activities in progress and that will be developed that tend to contribute enormously with the achievement of the proposed objectives of the Project.

These processes and activities, to the extent that they move toward a finalistic consolidation of results, contribute effectively to the elaboration of a National Program for Mangroves.

Although institutional development at the federal level is not included among the explicit goals of the Project, some observations with regards to this were made, such as:

* Preliminary evidence derived in part form METT questions referring to the results point to the relative lack of *effectiveness* of the project and preliminary signals of *impact*. The state of Pará offers a possible exception.
* Large negative impacts of large businesses can be forecast, including in this state, putting *sustainability* at risk.
* The relative *inefficiency* of the Project, due to the lack of institutional definition, high personnel turnover and the lack of exclusive dedication to the Project, and inadequate systematisation and computerisation of data, which is reflected in the lack of an adequate monitoring and evaluation system, as well as transparency and fostering of social control.

On the other hand, the need for adjustments with regards to the structure of management and implementation of activities envisaged in the Project was verified. The most relevant points, brought as results of the MTE, are presented in the following section:

**3.1. Relevant Points for the Evaluation**

* + 1. **About the Forums for Participation and Promotion of Co-management**

According to the evaluators, in the culture of social control the expected results should be expressed in the actions and processes that are summarised in ways that reveal the advancement of policy, such as: working information flows, adequate social environment, evaluation strategies and agreeing monitoring indicators, evaluated goals and objectives, appropriate management and feedback cycles.

The Technical Board for the Pilot Area (*Conselho Técnico de Área Piloto* – CTAP) was formally instituted in the 5 pilot areas of the Project. These are characterised as a permanent space for reflections on the problems and solutions pertaining to mangroves. They are spaces of discussion destined for a form of territorial co-management that should not be limited to simply during the Project. The CTAP can also facilitate local inter-institutional coordination that sometimes proves difficult to implement in practice, in order to guarantee the formalisation of agreements.

Other forms of permanent co-management coexist and should be potentialised as forums of debate and discussion. This is the case of the mosaic councils, such as the Lagamar Mosaic, which includes coastal areas of São Paulo and Paraná, and Boards from the Protected Areas (*Unidades de Conservação – UCs*), the Environmental Protection Areas (APAs), the Extractivist Reserves (RESEX) and the watershed committees.

* + 1. **Successful Experiences, Lessons Learned, Replication, and Dissemination of Data**

One of the big problems related to the exploration of mangrove products has to do with the conditions of sanitation, transport, regulation, and informality of crab fishing activities. These themes have presented advances with the execution of Project Activities. One can cite the replication/dissemination of activities carried out in one pilot area, the Parnaíba Delta, to another, the pilot area of Salgado Paraense. This has to do with the technological innovation for the transportation and temporary storage of products, the “*basqueta*.” This is an innovation utilised for the transportation of crabs and reduces by more than 50 per cent the death of crabs, diminishing socio-economic losses and pressures on mangrove resources.

A Normative Statement (*instrução normativa – IN*) was drafted to govern this material and was recently published. All that is left is to make sure that it is spread widely to public, private, and academic institutions, and offers assistance to crab fishers and other mangrove areas not included in the Project, through an official proposal at the federal level.

* + 1. **Project Execution and Strategies**

The change in the implementing institution for the Project, moving from the MMA to ICMBio, in the initial implementation stages, required a space of time to be spent in order to develop the organisational structure of the institution. This fact slowed down execution, not obtaining appropriate performance and within the allotted time.

However, there is evidence of a strengthening of the ICMBio institution for the development of specific conservation and sustainable use activities for mangrove areas. The explicit strengthening of the Institute is a reflection of the increase in institutional capacities for design, implementation, monitoring, and evaluation of policies for the use of natural resources available in mangroves, one of the projects expected from the Project (Product 5.2.1).

The Project has been able to place focus on the areas that are most important to implementing the strategies for conservation and sustainable use of the ecosystem in question. However, it is necessary to register the lack of new technological systems for management of natural resources threatened with extinction and that require implementation. As an example, the diffusion of new technologies for the sustainable management of crabs and fish, the permanent articulation of regional actions for the monitoring of the ecosystem status, more efficient communication processes, integration with research institutes and rural extension programmes are strategies that could be worked on.

It was identified that the problems of discontinuity in the execution and management of the Project brought upon delays in assessing the need for debate around a subsystem of specific management for mangrove areas in Protected Areas, given the dictates of the National System for Protected Areas (SNUC).

The peculiarities of PAs containing mangrove ecosystems also require discussions within the SNUC considering the diversity of categories of use that it houses and the demands of society that its activities encompass.

The component of capacity building and environmental education needs even more effective and systematic actions within the Project related to the management of mangroves as forest systems and not just as a habitat and refuge for seafood like fish and crustaceans.

The strategy of dissemination of lessons learned and continuing education for managers and advisers, combined with environmental education and qualified and specific education are actions that can be developed jointly with institutions and civil society.

However, the actions in progress are going in this direction, although they require a deadline for the achievement of results and so that they can be established as a system for management and strengthening of ways of life.

The grade attributed to the attainment of Project goals was Moderately Satisfactory (MS).

* + 1. **Activities that Need Better Indicators for Monitoring and Evaluation**

The definition of only two indicated species for protective markers: the Scarlet Ibis (*guará - Uedocimus ruber*) and the crab (*Ucides cordatus*), according to indicators 1 and 2 of the General Objective of the Project, in addition to the mangrove cover in the pilot UCs, was considered as a risk. Given this, both due to not having methods of collection, quantification, and monitoring clearly defined, and because they do not include other species considered relevant in the determination of quality status and possibility of use of the mangrove ecosystem, in addition to ignoring indicators of pressures and threats, such as, for example, the infrastructure sector.

For this case there are two actions in progress within the Project that are integrated into and interact with ICMBio internal processes:

* The Program for Mangrove Biodiversity Monitoring; and
* The National Plan of Action for Threatened and Important Socio-economic Species (PAN).

The two initiatives have moved a large number of researchers and traditional experts in mangrove resources. Both of the processes jointly articulated with the Annual Mapping of Vegetal Covering of Mangroves are characterised by being more ample proposals and attend to other expected results by the Project in a more integrated, articulated, and operational manner.

It is noted that the actions already in development by ICMBio and partners are broader and tend to contribute to the successful implementation of protection and monitoring actions for mangroves. In two initiatives of the programs mentioned above are the integration of regional research processes and accountability of actions and are linked to indicators 1 and 2 of the general objective, contributing much to the sustainability of the project after its termination.

* + 1. **Implementation of the Project: Monitoring and Evaluation**

A recommendation for the improvement of performance and implementation of the Project in a satisfactory manner demands the strengthening of national execution of the Project and the certain continuation of its activities. This statement permeates the present report and constitutes itself as an element for recommendations of coming analysis of data collected for the mid term evaluation.

In order to be efficient, the execution does not need to be completely centralised. A good structure for monitoring, evaluation, and control substitutes bureaucratic rigidity. For this, it will be necessary to carry out institutional learning that results in changes in organisational values, as well as in its strategies and assumptions. For example, the creation of effective partnership arrangements with relevant actors in the country or region for the implementation of the Project, collaboration with public universities are important articulations and need to be potentialised and established in various pilot areas.

In addition, it becomes necessary to encourage administrative and technical support to the State Environment Organisations (*Organizações Estaduais de Meio Ambiente – OEMAs*) and some municipal institutions in the various pilot areas, since many of them, principally in the Northern and North-eastern regions of the country need orientation, capacity building, and organisation. These processes, generally, take place in a slower time frame, since they demand real and permanent commitment from various institutions and partners. On the other hand, this generates a sense of belonging to the Project, promoting more sustainable actions in the medium and long term that require continuity.

* + 1. **Institutional Arrangements and Partnerships**

The Mid Term Evaluation (MTE) evaluators highlight the need for a territorial connection for RESEXs, one of the UC categories contemplated by the Project. Thousands of families live off of crab fishing and this number could be increased with the effective conservation of mangroves. Jointly with the occurrence of the manatee (*Trichechus manatus*), artisanal fishing practiced on the coast, the cultural values of populations highlights the ecological importance of this ecosystem in the regional, national, and global context, since it is located in the large continuous area of mangroves on the Planet (Maranhão-Pará belt).

As such, actions around integrated management of space together with the harmony of sectorial and institutional procedures, are characterised as an excellent form of attending to the demands for conservation of the ecosystem, management of resources, and sharing of benefits along the entire Brazilian coast. All of these actions require institutional arrangements and partnerships, which still need strengthening.

* + 1. **Sustainability**

The lack of operational resources for better efficacy of Project actions, such as the administration of UCs and their enforcement actions, has been identified. These factors held as priority are characterised as an institutional attribution, since they are within the limits of UCs. However, they delay or prevent the largest investments as in the Water Management Plan for Mamanguape.

Up until now, the largest challenges to sustainability of the efforts made in the Project execution have been the time of dedication of personnel of the Institution involved with the Project (in terms of intensity and continuity) and the institutionalisation of management mechanisms. These problems and challenges are not resolved, they only tend to increase when looking at the Project’s end.

On the other hand, new forms for management (co-management, integral territories), complemented by communities of learning and practice, offer solutions to the complex problems of coordination among institutions and levels of government in a vast country like Brazil.

* + 1. **Country Ownership and Agenda Integration**

With regards to agility in execution, considering what is in the Project Document and what is defined as actions to be executed, promptness in conducting activities is important, in such a manner that they can be fulfilled as soon as possible. For this it is necessary to carry out contraction of demanded consultants, the acquisitions of equipment, and free up resources for the execution of actions as they are planned and demanded.

With regards to the continuity of the actions of personnel involved in the Project, ICMBio is undergoing a process of institutional strengthening, consolidating its bureaucratic culture, institutional values and principles, seeking to develop issues, content, and institutional and execution norms. This is a natural and positive process for all organisations in their first years of life. It is important to remember that discontinuity, volatility, and functional rotation block the execution of a Project and interfere with its performance.

With regards to management, it is important to mature the concept of management of an Environmental Protected Area (APA) within the context of ICMBio, at the central and local level together with states. The large part of mangroves in Brazil is found within the APA category, and the majority pertain to states.

Promoting this methodological and managerial discussion around the APA as a political, technical, and bureaucratic tool for management for the use of ground and sustainable development should be another contribution of the Project. It is important that this contribution be shared and co-managed with municipal governments, partner organisations, states, and international organisms, both governmental and non-governmental.

With regards to personnel, the Project needs permanent personnel that are full-time thinking, discussing, planning, collaborating, developing, and executing the activities in the direction of meeting Project objectives.

* 1. **Project Formulation**

The concept of the Project or profile of the Project was approved by the GEF in 2004 and the Project Document (PRODOC) in June of 2005, but it was only signed in 2008. Soon after the finalisation of the institutional outline of the Project, the foundation of ICMBio occurred, the institution that became the executing agency for the Project. This fact provoked a delay in the start of the implementation of activities.

The Project proposal that relied upon the donation of resources from the Global Environment Facility (GEF) was approved as a project for the GEF modality 4. However, the creation of the Project began within the structure of GEF 3, when the cycle of the project was composed of 1) the Concept of the project that was submitted in specific dates and approved by the GEF Secretariat for inclusion in the programming, permitting it to proceed with the elaboration of the project, even without allocated resources; 2) an Executive Summary was drafted, and the UNDP PRODOC, utilising preparatory resources (PDF B). These resources would be included in a work programme approved by the GEF Board and there were no deadlines between the approval of the Concept and the Executive summary, but it was possible that the GEF resources were finalised, in this mid-term, forcing the postponement of finances and the implementation only in the next cycle.

The procedures in the new cycle of the structure of GEF 4 eliminated the need to draft a Concept or Executive Summary and in its place there is a Program Identification Form (PIF). The PIFs are sent on a rotating basis, but included in the work programmes on specified dates, with the Board destined for the financial resources. Thus, utilising preparatory funds (PPG), a final application is drawn up for final approval and access to reserved resources. The same is approved by the GEF Secretariat and sent to the members of the Board. Then, the deadlines for approval and endorsement of the PIF by the general Board are pre-determined.

In the period of transition between one model and the other, the projects approved in GEF 3 were not automatically included among the eligible projects in GEF 4. Sometimes, some adjustments were necessary in the original Concept design, since many Concepts from GEF 3 had been abolished. IN the case of the Mangrove Project, the inclusion occurred, but it was necessary to be postponed for the new project cycle. However, the GEF 4 was still new and the PIF format had not been approved. Thus, an Executive Summary, not a PIF, was sent for approval by the GEF Board. In parallel, the proponents proceeded with the finalisation of the PRODOC and with the drafting of new required elements, being sent to the general director for approval. This long delay had a large impact on the development of the Project.

It should be noted that the Project Document (PRODOC) and its components have been thoroughly discussed through national and regional workshops and the document is quite full, dense, and arises as a guideline document for actions to be developed.

After the approval and definition of the executing agency, ICMBio, and the implementing agency, UNDP, the Project began. With the goal of presenting a vision of the progress and implementation as well as activities carried out both in the preparation phase as well as actions that have been developed, the timeline to follow shows the evolution of the project and reveals events for each year that elapsed

**Project Timeline:**

|  |  |
| --- | --- |
| 2005  Preparatory Assistance – BRA05G41;  RAPPAM application;  Approval of PRODOC - BRA05G41 (June);  Start of Execution – BRA05G41. | 2006/2007  Creation of ICMBio. |
| 2007  Submission of proposal to GEF;  Approval of BRA07G32 (June);  METT;  Creation of the Delta Consulting Board. | 2008  Project Signature (July);  Preparatory Workshops. |
| 2009  First project review;  Transferral from MMA to ICMBio;  Definition of the management structure;  Pará crab forum;  Mapping of the vegetal covering of mangroves; Substantive review—extension of deadline to July/2013;  Initial workshop (November);  End of Institutional planning;  Start of project launch– leadership and management. | 2010  Start of formal execution;  RAPPAM application;  Mangrove Festival (November); Uçá Crab in the Parnaíba Delta Forum (December);  Ordinances for local coordinators; contraction of consultants for Mamanguape;  Mosaic WG. |
| 2011  Structuring, studies, subsidies;  CTAP –Parnaíba Delta (April);  Executive Committee – First Meeting (August);  Creation of the Technical Commission for Mangroves (May);  CTAP - Salgado Paraense (June);  Recommendation CNZU – new Forest Code (June);  Workshop – APA CIP (December);  CTAP Mamanguape;  Start of work for consultants. | 2012  Test for Methodologies;  Mid Term Evaluation;  CTAP São Paulo/Paraná (March);  CTAP Reentrâncias Maranhenses (March);  Steering committee– third meeting (April);  Workshop in Brasília (May);  Fourth Meeting for Lagamar WG (October);  Third Meeting - CTAP São Paulo/Paraná (October);  Start of Plan of Action;  Discussion of Regulatory Instruction;  Presentation in the SBPC;  Changes in coordination and direction of project. |
| 2013  Improvement in management;  Finalisation of the study on the Regulatory Framework (January);  Workshop on Improving Project Management (April). | |

**3.2.1. About Project Design**

**Analysis of Logical Framework: Logic/Strategy of the Project and Indicators**

The implicit logic in the Project Document is similar to other projects being implemented by UNDP in the Latin America and Caribbean Region (RBLAC). Capacity building will contribute to the impact of actions in a project.

Over the last decades, it has been verified that the existence of development projects in Brazil have relied on the “institutional strengthening” component which, many times, is the form in which conditions of viability of actions are offered, in counterpoint to the existing federal bureaucracy. Although this phase has been in large part overcome, currently the execution of the Mangroves Project provides support to the structuring of an institutional order through UNDP in partnership with the GEF.

The matrix of the constant logical framework of the PRODOC presents, however, a goal of the Project that “strategy of management for protected areas, tested in the field, should be adopted for the effective conservation of a representative sample of mangrove ecosystems in Brazil.” It also presents six indicators and their respective baselines, goals for the termination of the Project, sources of verification, risks, and presuppositions.

The matrix contemplates natural biological indicators and refers to the general objective, however, is restricted to units of conservation. Other indicators refer to the object or purpose of the Project, being that one of them is restricted to the UCs contemplated in the pilot areas and two of them are extended to the APs in general. The indicators also contemplate the actions referring to the environmental agencies, state IBAMA, OEMAs, and coastal municipalities.

However, the examination of the Project ignored the politico-institutional problems and the need for strengthening of organisational structures because of working with a recently created institution, the ICMBio. For this reason, the Project had a delay in the start of its activities.

Even though Result 1 refers to the “Existence of a conducive environment for a subsystem of protected areas for mangrove ecosystems implemented, inclusive financial mechanisms, regulatory policies” its respective goals refer to states or, at a central level, regulatory plans and norms.

The following shows the analysis of the results and products in relation to the proposed indicators. The expected actions of the four Project Results, numbers 1 and 4 refer to the subsystem related to mangroves in Brazil:

**RESULT 1**: The existence of a conducive environment for a subsystem of protected areas for mangrove ecosystems, including financial, regulatory, and political mechanisms.

**RESULT 4**: Increase in inclusion, dissemination, and adaptive management related to mangroves.

The second and third Results refer to the management or handling areas of preservation areas.

**RESULT 2:** Existence of replicable models for the management of mangrove resources in protected areas for sustainable use of the SNUC.

**RESULT 3:** Improved conservation of mangroves through alignment of the management of UCs with spatial and sectorial planning.

In 1 result has been the indicator that provides a specification of the expected outcome arising from training: "Existence of a core of trained staff, IBAMA/ ICMBio, OEMAs and/or local environmental agencies able to implement and use these rules and regulations.”

The referred regulatory framework is mentioned in Product 1.1: “Regulatory framework and corresponding operational guidelines for the better management of protected areas with mangroves.” Indicator number 1 and its respective goal express the goal that at least 80 per cent of all states with mangroves, not only those with a pilot project, have according and coordinated norms and guidelines among three levels of government. For this, the Project necessarily will have to promote permanent debate with the OEMAs and agendas of external institutions.

According to discussions of working groups in the UNDP/ICMBio meeting in May of 2012, new indicators for Product 1.1 were suggested which are:

* States with Thematic Chambers for the mangrove ordering installed and functioning in the formal Councils and Forums for discussion;
* Number of Forums that act in the ordering of “socio-environmental resources” for mangroves;
* Number of pilot areas with norms and orientations for the management of mangroves created or enhanced; and
* Number of norms and orientations of ordering of the utilisation of socio-environmental resources agreed upon.

Product 1.2 is the most in-depth, and challenging, of all of the products of the logical framework: “institutional procedures and capacities aligned with the new regulatory outline for the management of mangroves and articulated with the sectorial policies.”

However, this product needs a more precise indicator. According to discussions carried out in the Work Meeting, May of 2012, the following was presented as a proposal of a new indicator:

* “Capacity building of personnel from competent organs within the SISNAMA to implement and utilise norms and regulations.”

With regards to the states of São Paulo and Bahia, where a case study should be carried out, the goal of increasing financing of protected areas by 30 per cent was identified. In these two states, “financial strategies” to which product 1.3 refers would be tested.

The São Paulo/Paraná grouping is not mentioned in any other indicator or goal.

As proposals for new indicators for product 1.3, the referred Work Meeting in May of 2012 presented other indicators:

* Rules built in a participatory manner for mangroves in all categories of UC; and
* Incorporation of the mangrove ecosystem in water resources planning.

Product 1.4, “A representative network of UCs with mangroves projected within the existing AP system,”

predicts the design of a virtual network of PAs that is representative of the seven units with mangroves found in the country. There is, however, a caveat, which follows, in the PRODOC (paragraphs 106-107): "Although this network will not be implemented by the Project, it will be an important tool to guide future initiatives for APs with mangroves and to increase the scale of the project strategy. "But we need to ensure space for debates within the SNUC, so that UCs of the Project, through their managers, are qualified to assist in information with regards to the need for decisions. Meanwhile, the network of UCs articulated within the duration of the project, contribute beyond its expiration.

The Product 1.5 and its respective indicator refer to the proposed National Plan for the Conservation and Sustainable Use of Mangroves, being verified here the differentiation between conservation and sustainable use. “The studies, pilots, proposed regulatory framework, and lessons learned of the Project will be utilised to develop a national strategy that contemplates the conservation and sustainable use of mangroves in Brazil in an integrated manner, based on systems.”

Some of the models identified through Result 2 would be incorporated at the systematic level through Result 1, for later replication in other protected areas.

The use of “in place” in Result 2, means that its achievement should be within the life of the Project and that:

1. It be possible to develop management strategies for each protected areas with mangroves (for example, to accommodate specific characteristics of mangroves);
2. These strategies be tested, establishing their internal and external validity;
3. Afterwards, the same pilot areas or their strategies should be applied with success in other protected areas with mangroves, according to the characteristics of each area. Indicator 4.4 already confirms the intention of being able to rely on the “replications of the pilots of the Project” in other areas for mangrove protection in the country, and that there be sufficient similarity between one pilot area and another protected area to make possible “replication;” or, alternatively, that certain specific characteristics be incorporated into the SNUC norms. This does presume, as states Result 3, that “alignment” of management or handling of Protected Areas through the pilot areas through sectorial and spatial planning in their respective areas occur as widely as possible.

With regards to Result 2, indicators are indicated relative to only the Salgado Paraense pilot area, that mention the management of fishing resources, and the Parnaíba Delta pilot area, regarding the exploration of *uçá* crab resources.

A third indicator would be more general: Development and commercialisation of new mangrove products.

Of the four products forecast under Result 2, three replicate the three indicators. The fourth, product 2.4, introduces the issue of capacity building: “Program of capacity building around the implementation and replication of approaches for the sustainable use of resources of PAs with mangroves developed and offered.”

According to results of the discussions around the indicators, carried out in the Work Meeting, in May of 2012, the addition of another indicator was suggested:

* The improvement of the quality of life and the increase in family income. The measurement would be: incorporate data about education and health in the item “qualify goods;”
* Product: Areas of fishing conflicts in the protected areas. Indicators: a) fishing conflict areas defined and b) educated community members, source of verification on the improvement of quality of life) through the domination of information;
* Community members educated on the management of fishing resources; and
* Good fishing practices in the UCs, of a participatory nature.

With regards to Result 3, there are indicators referring to only two of the five pilot areas, supposedly those with a direct relationship:

* For Rio Mamanguape (PB): management or handling instruments for watersheds; and
* For Reentrâncias Maranhenses, the incorporation and conservation of mangroves in the APA zoning.

Product 3.1 does not specify what is the “great APA” in question, but everything indicates that it refers to the State APA Reentrâncias Maranhenses, while Product 3.2 refers to the pilot area of Mamanguape in the state of Paraíba.

As a result of the Work Meeting, May 2012, the addition of this indicator was suggested:

* The incorporation of the mangrove ecosystem of the water resource management plan in the Mamanguape Watershed.

Regarding Result 3 (Conservation of mangroves improved through the alignment of management of UCs through spatial and sectorial planning), there is also Product 3.3 (Program for formation created and implemented for the relevant planning institutions, sectorial actors, and UC directors), which refers to capacity building, not only for management of Protected Areas, but also for planning institutions and sectorial actors.

For the indicators referring to Result 4 (Increased inclusion, dissemination and adaptive management related to mangroves), two refer to the level of execution of the Project and UCs. The third (Number of cases in which adaptive management is carried out taking into consideration the results of M&E), could well be applied as well at the central level within ICMBio. The state programs should be coordinated among themselves and inter-linked within a national system, Result 2 (Replicable models installed for the management of mangrove resources in the UCs for SNUC sustainable use), in addition to including the Project actions in the pilot areas.

According to discussions carried out in the Work Reunion, May 2012, a new indicator was suggested:

* Social communication actions around the importance of mangrove conservation.

Considering that the problem of mangroves in Brazil is much less well-known and with less degree of commitment than to the Amazon or Atlantic rainforests, indicator 4.1 is very important, since it forecasts the carrying out of baseline studies and towards the raising awareness among public and private actors as well as the general public, as relates to Product 4.3.

In addition to the Program for the Monitoring of Mangrove Biodiversity (Product 4.1), the development and implementation of Management and Monitoring of the Project (Product 4.2) is forecast. Thus, it is possible to plan an online management system for the Project.

Further, according to the result of the Work Meeting, a new indicator was proposed:

* Number of public policies and good practices that consider the results of monitoring and evaluation of the Project.

Thus, the discussions carried out in the Work Meeting, 2012, were important sources for the definition of new indicators for activities to be developed or the rectification of some of those included in the original PRODOC.

**3.2.2. Premises and Risks**

As already mentioned, in Brazil, 80 per cent of the marine species of commercial values, such as fish, crustaceans, and molluscs, depend on mangrove ecosystems in their stages and cycles of life. At the global level, the deficit of nutrients in marine ecosystems arising from the degradation of mangroves brings losses of about 4.7 million tonnes of fish and 1.5 million tonnes of shrimp to the fishing industry.

Besides the depletion of habitats, some more important species, both for the  ecosystem services they provide as well as for their role in the local economy are showing signs of overexploitation. One of these is the *uçá* crab, which plays an important role in soil aeration and nutrient cycling, as well as being the main economic resource in many mangroves communities.

It is estimated that 25 per cent of Brazilian mangroves have been destroyed. Many of those that still exist are classified as vulnerable or endangered. The habitat transformation occurs by fragmentation and loss of vegetal cover and the deteriorating quality of aquatic habitats by pollution and changes in hydrodynamics, bringing about an inhospitable environment for the species and a consequent reduction and loss of ecosystem services.

The threats and their vectors, as well as the relative importance of these in each area of intervention of the Project, are presented to follow:

**- Aquiculture:**

* Shrimp farming has negatively affected mangrove ecosystems with the construction of shrimp tanks and barriers that modify the natural bodies of water, change water flow and perturb hydrological equilibrium;
* Water pollution due to chemical spills;
* The increase in competitiveness among endemic species and exotic species of fauna;
* The introduction of pathogenic agents and parasites; and
* The genetic alterations in local fauna by exotic species. The displacement and exclusion of local communities and their traditional fishing territories also has occurred in some areas.

**- Fishing industry** *–* the increase in fishing pressure on estuaries and associated mangrove ecosystems has threatened some species. Among them is the *uçá* crab, which is included in the list of overexploited species and has a fundamental role in the functioning of mangroves, affecting the equilibrium of nutrients. Consequently, the number and the types of species capable of prospering in this ecosystem are altered. In addition, other illegal fishing practices have lead to over-fishing and the destruction of the habitats, which results in the loss of coastal biodiversity.

**- Agriculture** *–* the cultivation of rice and sugar cane are the principal agricultural products planted in the micro basins along the coast. These have a negative impact on mangrove areas, being able to bring about the reduction of quantity and quality of water and inducing alterations in the hydrologic equilibrium with the increase of sedimentation, erosion, and siltation. The cultivation of sugar cane in the Northeast uses large quantities of nitrates and fertilisers. The improper elimination of liquid waste produced by the power plants has polluted waterways. Practices of irrigation for the cultivation of rice reduce the flow and quality of water due to the diversion of streams and the draining of lagoons and the flow with high levels of salt, pesticides, and fertilisers.

**- The construction of urban, industrial, and tourism installations** entails deforestation, landfilling mangrove areas, erosion, sedimentation, eutrophication, and unforeseeable changes in the water regimes of mangrove environments. Water habitats are also being polluted by the inadequate treatment of sewage and domestic and industrial polluters as well as by heavy metals and other toxic products, such as ammonia, nitrites, and nitrates. In addition, the expansion of the construction of tourist businesses along the coastal areas has gained force in recent years.

**- Wood** – The *Rizhophora mangle* and *Lagunculária* species are species that have various uses in the North and Northeast. Other types of wood are used for their astringent and antibiotic properties or as sweeteners and traditional remedies. Despite existing legislation, the extraction of wood does not observe sustainable techniques or levels and relies very little on forest management plans.

**- Climate change** – Though they do not present a threat to mangroves in Brazil, forecasts of climatic variability with the increase in frequency in storms, changes in currents caused by climate change, and the increase in sea level point to a threat. This could bring about a retreat from mangroves with the migration of land species looking for ideal environmental conditions. This migration could be impossible due to physical obstacles constructed among mangroves, resulting in a loss of habitat and protection and regulation services that mangroves provide to land ecosystems and the coastal infrastructure. The buffer zones in these areas require extra attention.

**Causes Underlying the Threats**

The underlying causes of these threats relate to a series of policy, regulatory, and institutional capacity deficiencies. The most critical are:

1. Licensing system through the OEMAs, the need for permanent coordination among federal and state licensing systems and, further, norms for use and occupation of soil and subsoil.
2. Installed capacity of licensing and supervision. The capacity of the relevant organs to implant, enforce, and monitor licensing for sustainable extraction in APPs with mangroves and in the terrestrial and marine landscape where they are located and on which they depend, is compromised by institutional deficiencies.
3. Low sectorial participation in the processes of licensing. The productive practices in the diverse sectors are subject to specific legislative structures. These processes generally depend on inputs from a large number of institutions with different levels of capacity and knowledge in relation to the possible responses of the diverse ecosystems to the activities.

1. Planning at the level of landscapes and development. The regional, municipal, and sectorial plans rarely contemplate in their analyses and in the definition of strategies and goals the negative impacts that the lose of mangroves could have on production. This results from the fact that mangrove ecosystems are, in large part, seen as non-productive areas and little attractive to where poor communities make their meagre living.

It is claimed that it is not only productive sectors that do not consider the importance of mangroves as producers of services for their actions. The water resource sector also has not considered their impacts on the mangrove. Some instruments have been created, such as the development of management plans for micro basins, the classification of bodies of water, the determination of acceptable uses based on this classification and the subsequent emission of grants for use. This is emitted by the National Water Agency (ANA) or by state water agencies, depending on the jurisdiction under which the body of water in question falls. But there are still many unclear issues with regards to procedures and the application of these instruments.

However, this necessary coordination between the actions of the Project and the ANA programmes was identified as one that needs better performance in order to reduce or eliminate risks with regards to the population of watersheds. Both as regards the Project, through coordination/direction and the state agencies, as well as the coordination of institutional agendas in the states (IBAMA, ICMBio, MPA, MMA, and others)

As regards threatened species, two are indicated as explicit protection markers in indicators 1 and 2 of the General Objective: the Scarlet Ibis (*Uedocimus ruber*) and the crab (*Ucides cordatus*) in addition to the actual mangrove, in the pilot UCs.

The first meeting for the drafting of the PAN Manguezais, in January 2013, could be considered as an updating of the first indicator, where 17 species of socioeconomic importance were selected, identifying the principal threats confronted by the species and the ecosystem.

The first two assumptions relating to indicators 1 and 2 refer to institutional development at the federal and state level and have repercussion in the management of protected areas. The third assumption, "the sustainable use of protected areas to generate adequate benefits of mangrove conservation at the national level," raises an implicit question: what would be considered "appropriate" to persuade the Government to maintain its commitment to improving the conservation of mangroves, taking into account the rival development priorities and resource constraints, especially after the termination of the Project?

Among the risks raised as a result of the discussions carried out in the Work Meeting in May 2012 there are the following risks, by result:

**a) Result 1:**

* Concern for the Project activities that are outside the governability of the Project;
* Difficulties of access to information about the Project;
* Difficulties to build forums and sign agreements;
* Scarcity of financial and human resources;
* Difficulties in the implementation of plans;
* Non-acceptance of the incorporation of mangroves by the Water Resources Policy;
* Low governance of projects; and
* Insufficiency of duration deadline for the Project.

**b) Result 2:**

* With regards to the official ecosystem plan for fishing and management plans for pilot UCs, the risk of lack of agreements and not having a formulated plan was raised;
* Low quality of data collected;
* Low degree of community involvement;
* Non-absorption of provided products of the mangrove ecosystem by the market;
* Non-attendance to the requirements of the market, with regards to the quality of the product, quantity and consistence of attendance to market demand;
* Low degree of participation on the part of representative entities of UC boards;
* Insufficient universal sample to carry out analysis;
* Inefficient mapping and deficient monitoring;
* Lack of internalisation of acquired knowledge; and
* Risk of discontinuation of programs and projects in progress and initiated by the Project.

**c) Result 3:**

* Lack of resources for drafting the Mamanguape Water Resources Plan;
* Withdrawal of the team responsible for the drafting of the Management Plan;
* Low budgetary execution;
* Non-contraction or withdrawal of consultants;
* Zoning carried out without the necessary field research;
* Lack of agreement with municipal governments and non-signing of agreements;
* Non-participation of representatives of the principal institutions in the activities and meetings; and
* Absence or loss of records of participation in the acts of the zoning meetings.

**d) Result 4:**

* Too much rotation in the representations of private and public actors with regards to the management of UCs of mangroves and the ecosystem services they provide;
* Lack of commitment to the integration proposed by Product 4.1;
* Participants that are little involved due to lacking institutional indication; and
* Possibility of not considering the peculiarities of adaptive management and the Monitoring and Evaluation of the Project.

The possibilities of risk to the completion of the Project objectives are factors to be considered for future propositions of effective actions together with the mangrove ecosystem and actions that demand more involvement of populations that utilise it, as well as coordination with the diverse governmental and non-governmental sectors that act for the conservation and sustainable use of the mangrove.

**3.3. Lessons from other Relevant Projects for Project BRA/07/G32**

Two previous projects were highlighted in the PRODOC: Promoting the Conservation of the Biodiversity and Sustainable Use of the Frontier Forests of Northeast Mato Grosso, implemented by GEF/UNDP/SEMA MT, and Demonstrations of the Integrated Management of the Ecosystem and Watershed in Caatinga, implemented by GEF/UNDP/MMA.

Among the lessons learned cited, the following is found: “decentralised management is a good practice for reaching local communities.”

Another project that brought lessons learned and was of great worth for the present Project BRA 07/G32, was the Project for Protected Areas in Amazônia (ARPA). The implementation of ARPA brought about an impact on national and global development.

ARPA was launched in 2002, and anchored to the System for Natural Protected Areas (SNUC) with the goals of:

1. Creating 18 million hectares of new UCs (9 million hectares of integral protection and 9 million hectares of sustainable use);
2. Consolidating 7 million hectares of existing UCs for integral protection and 9 million hectares of recently-created UCs for integral protection;
3. Establishing a fiduciary fund for permanent capitalisation to sustain the maintenance costs of UCs; and
4. Establishing a system of monitoring and evaluation of biodiversity of UCs and on regional levels.

ARPA is a program of the Brazilian government and implemented by ICMBio, including an innovative arrangement with the operation of a non-governmental organisation, the Brazilian Fund for Biodiversity (*Fundo Brasileiro para a Biodiversidade – FUNBIO*), in the financial execution of the program and the governmental partnerships in the areas where there are state UCs. The technical assistance for the development of capacities of implementing partners was guaranteed by the German Agency for Cooperation and WWF-Brazil.

Therefore, as ARPA is implemented by ICMBio, certainly its derived lessons are of great worth for improving the execution of Project BRA 07/G32.

**3.4. Participation of Local Actors**

* **Participation of Actors**

The PRODOC states (in paragraph 187 in Portuguese, 177 in English) that “The project up until now has been drafted in a participatory manner according to CDB and GEF guidelines.”

In the Parnaíba Delta, Salgado Paraense, and in the São Paulo/Paraná grouping, the Technical Board for Pilot Areas (CTAP) exemplifies an elevated degree of social capital, with members representing diverse federal organs, university professors and students, and fishermen that meet regularly and interact in a collaborative and mutually respectful climate. In the Reentrâncias Maranhenses, on the other hand, the CTAP never functioned.

The Co-Management Institutions (ICGs) exercise the representation of civil society in a democratic and continuous manner; typical examples would be the health councils and participatory budget. However, it would be impossible to imagine a CTAP or watershed or RESEX committee without effective popular representation.

An ICG needs a certain autonomy, including financial autonomy, in order to function: “The *self-managing* management is fundamental in order to establish the co-responsibility of territorial management” (ibid, pg. 102). Today the coordinators and local managers for ICMBio can rely on, at least, outsourced services of road transport and administrative services. However, those on the Project still complain about administration, considered by them as “one by one.”

With regards to the ownership of Project actions by the local population, the practice supposed to start with a diagnostic, asking what they needed to possibly carry out actions in an opportune moment or not presents results that are sometimes contradictory. The availability of resources could slow down these promised actions, through decisions to be made at the central level, whether by ICMBio, UNDP, or by the Project. As a practical consequence of the involvement could lead to the loss of trust in the managers and reduce the effects of desired participation.

“In the culture of public oversight, the expected results should be expressed in the actions and processes summarised in the aspects that reveal the advance of policy—information flows that are functioning, an adequate social environment, evaluation strategies and monitoring indicators in agreement, goals and objectives evaluated, appropriate management and feedback cycles” (ibid, pg. 101).

Public oversight, defended by the Comptroller General (CGU), principally to curb corruption, also serves to prevent low execution of projects. This form of control was one of the causes for, at the end of 2012, with few months until the forecast end to the Project, with spending at only 20.1 per cent of the available GEF funds for the Project and including disbursements for 2013, the percentage is at 27.1 per cent (see Table 6).

Evaluation: satisfactory (**S**).

**3.5. Possible Replicability of the Project**

There was already dissemination of one pilot area to another of an innovation like the “*basquetas*” for the transportation of crabs, being that the innovation expropriated by one state, widely spread among crab fishermen in other states, and proposed at a federal level.

The *basquetas* were presented for the first time in April of 2011. The technique was developed by Jefferson Legat, along with professor João Marcos de Góes, in the Parnaíba Delta CTAP, involving a new transportation method for the *uçá* crab. In September of that year, the researchers transmitted the use of the instrument to the participants at the Castanhal Agricultural Fair, in the heart of Salgado Paraense, including how to apply the important innovation. More information can be found at the following site: [**http://www.sepaq.pa.go.br/?q-node/257**](http://www.sepaq.pa.go.br/?q-node/257)**.**

With this transportation instrument, the crabs are no longer transported in bags, and rather in baskets covered by moistened sponges. According to the site referred, on the first day of travel the rate of death utilising the innovation fell from 50 per cent to 2.5 per cent, and currently, down to 1.2 per cent, according to SEPAq technicians interviewed. After 6 days of travel, 83 per cent of the crabs are still alive, versus 14 per cent of those transported in bags.

In 2011-12, 380 crab fishermen were trained as multipliers; each one should train 25 more. Having initially invested in a small quantity of baskets, the state now finances the course, and the travel and per diem costs for participants.

As evidence of the development of social capital and the possibility of replication for other areas, there is the fact that each group of extractivists chooses a member of the group to carry the baskets to the local market, normally in Belém, and commercialise the crabs. Returning home, the producer divides the earnings according to the number of crabs contributed by each of the participants. The price per crab, was before three cents paid per intermediary in the community and is now fixed at one Real, in the Belém market.

This was the case of replication found in the evaluation that represents a potential for replicability in other Project areas.

* 1. **Cost Effectiveness**

Currently, the coordination among the various pilot areas is conducted principally via email and telephone, in addition to national meetings. A cost-effective structure for a network for communication, planning, control, and advocacy is still lacking. This structure would be a community of practice, through the use of diverse internet technologies, varying from the informal to the formal and the use of external resources to be shared among the members; and participation and re-statement, from asynchronous to synchronous communication.[[1]](#footnote-1) Communication can also be done face-to-face or through other more traditional means. Blogs in some states should have their links, for example:

* <http://geppam.blogspot.com.br/>, from the Group for Landscape and Environmental Planning (GEPPAM), at the Federal University of Pará (UFPA); and
* <http://cermangueufma.blogspot.com.br/2012_12_01_archive.html>, from the Federal University of Maranhão (UFMA).

Other links would be for the Project’s monitoring, evaluation, and oversight systems and the diverse institutions, or, preferentially, for a unified system that is simplified and friendly.

An additional benefit, identified by the collection of field data, would be the possibility of involving more people at a much lower cost than that of the national meetings where it is necessary to bring together participants from the execution areas of the Project.

* 1. **UNDP Comparative Advantage**

UNDP is known in Brazil for its efficiency in the execution of international technical cooperation projects. However, the local instances of execution of the Project, through ICMBio regional offices has insisted in the solicitation of the adoption of a modality of decentralised disbursement that permits the pilot areas, as well as the coordination, management, and CTAP, to be able to directly access a parcel of the Project resources.

The proposal has been discussed by the central bodies of ICMBio and UNDP. For now, the response from UNDP has established itself in the finding that the decentralised disbursement would not be viable, since giving access to the password for executing financial resources of the Project to all the regional offices would be a complex procedure and would complicate budgetary control of the Project’s resources and those of its counterparts.

Centralised management would be, in this case, more recommended. Regardless, the centralisation of financial performance for the development of activities in the central body of ICMBio or at UNDP itself, complicates the co-management process and the achievement of integral territorialisation of public oversight in a more efficient manner.

* 1. **Ties between the Project and other Sectorial Interventions, including Managerial Arrangements**

In the remarks about budget, the PRODOC contained the following statements: “It is fundamental to ensure coordinated activities in pilot areas (Results 2 and 3) and at the central level (Results 1 and 4).

The arrangements for implementation were developed with this goal and to ensure the incorporation of the results of the Project in local and national policies. A reasonable number of Government staff have been designated to manage the Project, however, technicians with additional specialised knowledge are necessary.

In total, 520 local consultant weeks will be financed through GEF funds, including the Technical Coordinator of the Project and the Financial Director; and 2,340 weeks through co-financing, including the National Director of the Project; local coordination teams, Technical Managers and Advisers. Technical Managers (from the co-financing—total of US$408,000: 5 consultants x 260 weeks at US$314.84/week); Technical Advisers (from the co-financing—US$198,000: 5 part-time consultants x 260 weeks at US$152.30/week). The GEF resources are

- Technical Coordinator for the Project (total of US$210,000: 260 weeks at US$807.69/week);

- Financial Director (total of US$150,000: 260 weeks at US$576.92/week)…”

According to Substantial Revision B, from 04/24/2009, “In the national plan, the UGP will be composed of the Project Director, the National Technical Coordination, the Technical Adviser to the Project, the Financial Director, and the Administrative Assistant of the Project.”

Since the Project is financed by the GEF the supervision of the necessary activities for the achievement of the Project objectives will be carried out by a UNDP team directly and exclusively tied to this Project who will work in strict collaboration with the MMA, ICMBio, and IBAMA.

ICMBio will designate personnel from their existing technical divisions (DIREP, DIUSP, DIBIO) and financial division (CGFIN – Coordenação Geral de Finanças e Arrecadação) to represent the component of National Coordination of the UGP. It will also finance the Director of the Project and the Administrative Assistant.”

The Administrative Assistant(s) that would be contracted through the co-financing funds and the Financial Director that would be by the GEF were not contracted as of the present date.

The supervision of the necessary activities for the achievement of the goals of the Project will be carried out by a UNDP team that will do the technical-administrative monitoring and this has been carried out to satisfaction.

The lack of effective co-financing, the high rotation of personnel and the lack of exclusive dedication to the Project from ICMBio are factors that have negatively impacted the execution of the Project, as already mentioned.

For the exchange of knowledge and experiences, the Project forecast meetings with the participation of coordinators from other GEF Projects. Among these projects the following are included:

* Amazônia Protected Areas Programme (ARPA);
* Integrated Management of Water Resources in Amazônia Project (AquaBio);
* “Conservation and Management of Pollinisers for a Sustainable Agriculture, through an Ecosystem Approach” – Project Pollinisers, GEF/FAO; and
* National Project for Integrated Public-Private Biodiversity Actions (Probio).

The exchange of forecast experiences includes areas such as community fishing, forecast in the AquaBio Project, UC consolidation, in partnership with ARPA, dynamic of the bee population and honey production, with the Pollinisers Project; and strategies for the preservation of species and ecosystems and biodiversity knowledge and management, with ProBio. However, it is important to register that this exchange of knowledge and experiences has taken place in a sporadic, non-systematic manner.

It is important to highlight, however, the need for more actions of coordination among projects and implementing institutions in order to potentialize actions of the Mangroves in Brazil Project.

1. **Implementation of the Project**

**4.1. General Considerations**

According to the PRODOC, the actions proposed by the Project seek to improve Brazil’s capacity to promote the effective conservation and sustainable use of mangrove resources and ecosystems, through a protected areas approach based on the strengthening of the National System of Protected Areas (SNUC) and the designation as a permanent preservation area of all mangroves in Brazil. The achievement of this goal will contribute to the maturing of the conservation strategy for protected areas Brazil has adopted, giving more ecological, institutional, and systemic sustainability to the SNUC.

The goal of the Project is to promote the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and the welfare of coastal communities. The immediate objective is to adopt a management strategy for protected areas tested in the field for the effective conservation of a representative sample of the Brazilian mangrove ecosystems. The Immediate Objective of the Project will be achieved through the following four Results and their respective Products:

|  |  |  |  |
| --- | --- | --- | --- |
| Result 1 | Result 2 | Result 3 | Result 4 |
| Existence of a conducive environment for the implementation of a subsystem of PAs with mangroves, including financial, regulatory, and political mechanisms. | Existence of replicable models for the management of mangrove resources in SNUC protected areas for sustainable use. | Improved mangrove conservation aligned with the management of UCs through spatial and sectorial planning. | Increase in extension and dissemination activities related to mangroves, and utilising adaptive management. |

For the construction of these results and products, the organisational structure of the Project, shown below, is composed in an organisational chart:

**Chart 1: Project Organisational Chart**

LOCATION POSITION/OCCUPATION INSTITUTION

Technical Coordination for Pilot Area

**Technical Manager**

Technical Coordination for Pilot Area

**Technical Manager**

**Assessor Técnico**

Technical Coordination for Pilot Area

**Technical Manager**

Technical Coordination for Pilot Area

**Technical Manager**

Technical Coordination for Pilot Area

**Technical Manager**

**Central Project Management Unit**

**Director of the Project**

**National Technical Coordination**

(MMA/IBAMA/ICMBio\*)

**Technical Coordinator for the Project**

Financial Director

Administrative Assistants

CNZU

**Comittee Director of the Project**

**MMA/SBF**

**Brasília MMA/SBF +**

**IBAMA and ICMBio**

**IBAMA/**

**ICMBio**

**OEMAs**

**Pilot Areas**

Pará Maranhão Piauí Paraíba: inte- São Paulo/Paraná

Principal subject:fishing land productive grated manage- financial

ecosystem ordering chains ment: coastal mechanisms

management UC and water

resources

Federal Law number 11,516, decreed on August 21, 2007, created the Chico Mendes Institute for Biodiversity Conservation (ICMBio), assuming the attributions until then pertaining to IBAMA for, among other things, taking care of the management of the protected areas.

The analysis of the organisational structure of ICMBio demonstrates a transversailty of attributes and functions that were taken into consideration fro the management arrangements of the Project. However, it is important to note that this organisational model brought on a few problems for the execution of the Project was adversely affected by the lack of accountability and ownership of activities on the part of sectors of the institution with which it was tied. This problem frequently has been bypassed with specific performance strategies. Explicit examples could be made with regards to the responsible sectors from the organisational structure.

Thus, the project forecasts the creation and implementation of management plans in different pilot areas. The demands for these activities have to be directed by the Directorate for the Creation and Management of Protected Areas (*Diretoria de Criação e Manejo de Unidades de Conservação – DIMAN*). As it is not possible to transfer resources among different budget lines or forecast pilot areas in the Project, even if there are resources in excess in one area with little execution, the sector responsible for the activity remains dependent on the Project management.

On the other hand, until mid-2012, the substitute coordinator for the Project was within the Coordination of Traditional Policies and Communities, within the General Coordination for Traditional Populations, which is linked to the Directorate for Socio-environmental Actions and Territorial Consolidation in Consolidation Units (DISAT). Since the Project depends on the involvement of traditional populations, fishers and crab fishers, this link would be adequate. However, the National Centre for Research and Conservation of Socio-biodiversity Associated with Traditional People and Communities (*Centro Nacional de Pesquisa e Conservação da Sócio-biodiversidade Associada a Povos e Comunidades Tradicionais – CNPT*) is linked to the Directorate for Biodiversity Research, Evaluation, and Monitoring (*Diretoria de Pesquisa, Avaliação e Monitoramento da Biodiversidade – DIBIO*), but, the referred CNPT is found to be headquartered in São Luis – MA, where the coordinator also takes on the management of the pilot area of Reentrâncias Maranhenses. These are some problems encountered in the implementation of the Project.

Evidently, the Project would need a matrix structure, where the responsibilities of different individuals and divisions by the products and the respective activities were much more defined. In addition, the execution of the Project needs a staff member from ICMBio with full-time exclusive dedication for the Project.

The high rotation of national directors and coordinators has complicated the understanding of bureaucratic red tape by the new incumbents that take on the Project activities. If a new administrative assistant comes to the Project as forecast in the PRODOC that could help evade the solution of continuity in the execution of activities.

However, the continuity referred to here could be found in the figure of the responsible person in the financial area, who works in ICMBio and already has years of experience in financial execution as a staff member of IBAMA.

Within the very Project, there is only the technical assistant contracted as a consultant. Outside of this, the continuity and earlier knowledge of the developed activities are the responsibility of the UNDP office in Panama, responsible for GEF actions in Brasilia. This situation brought about delays in the implementation of the Project and difficulties in the development of priority actions and procedures for the achievement of forecast results.

Keeping in mind this reality, it is important to consider the complaints on the part of executors at the local level with regards to delays and denials of financial or personnel resources that have an impact on the low execution of the Project that falls on their responsibility

Identified as a solution for these problems is the strengthening of national execution of the Project and in its continuity. However, for this strengthening the execution does not need to be centralised because the existence of an efficient structure for monitoring, evaluation, and control could also substitute bureaucratic rigidity. For this, it an organisational education could be necessary that results in changes in values in the theory applied in the organisation as well as its strategies and assumptions (Calmon, 1999).

According to interviews from consultants, some forms of decentralisation of financial resources exist and have been adopted by some projects. However, it then becomes necessary to analyse these modalities in relation to the financial norms for public service. Thus the procedures for execution for the ARPA Project, a GEF project with implementation by the World Bank and execution by the Brazilian Fund for Biodiversity (FUNBIO), a private entity, were cited as practices of agile financial performance.

According to information from the Ministry for the Environment, the administrative innovations adopted by the ARPA Project made possible a more effective management system in the protected areas. The success is attributed, principally, to the creation and utilisation of systems accessed by the internet and the utilisation of the “linked account” modality. SisARPA permits partners to accompany the financial progress of the project. The “linked account” or “joint account” allowed for the streamlining of flows of resources between FUNBIO and the UC managers, with a reduction in bureaucracy, immediate accounting, and swiftness in the execution of activities.

However, it is important to note the existence of legal questions involved in these operations that need to be discussed before they are adopted, since there is a need to consider the figure of the expense authoriser, responsible for making funds available and who constitutes themselves as a requirement of public law. Regardless, the issue is relevant to respond to the complaints in the areas and referring to an administration that requires too many steps for Project resources, at a central level, and the current national policies for strengthening of territories and co-management.

It is, however, a project run by the government (NEX). The management control of the Brazilian government's actions at different levels is already complex and coupled with actions of an international body, it becomes even greater administrative challenge.

Law number 12,527, sanctioned by the President of the Republic on November 18, 2011, has the purpose of regulating constitutional rights of citizen access to public information; this is applicable to the three levels of government. Strictly speaking, the law doesn’t apply to international organisations; however, the referred information on spending of resources donated to Brazil are available on the UNDP page and the projects fill the SIGAP of the federal government, in which the data of financial spending are published, with the purpose of being adhering to transparency guidelines.

Some partnership arrangements with relevant actors in the country and the region were identified as the most solid for the Project’s implementation.

The Board for the Pilot Area (CTAP) from the Salgado Paraense area counts on the participation of the Pará State Secretariat for Fishing and Aquiculture (SEPAq) which formulates, plans, coordinates, and executes policies and guidelines for sustainable, integrated, and participative development of fishing and water activities in Pará. In addition, the Integrated Management Plan for Fishing Resources is being developed in collaboration between the Project and the Federal University of Pará.

These partnerships allowed for the utilisation of an innovation developed in the Brazilian Agency for Agricultural Research (EMBRAPA) and the Federal University of Piauí, both institutions represented in the Parnaíba Delta CTAP. SEPAq/PA invested resources in the construction of “*basquetas*,” thermically insulated for the transportation of crab, reducing mortality from 50 per cent to under 2 per cent, and supporting the fishers in their social organisation. Today these *basquetas* eliminate the intermediary figure, choosing representatives that bring crab to the market and sell them in the Pará state capital, Belém.

In Parnaíba, the evaluators participated in a CTAP meeting and observed the fruitful interaction among representatives from ICMBio, EMBRAPA, UFPI, SEMA, IBAMA, crab fisher cooperative for the Delta-Uçá Ltd., and the Maranhão Association of Freshwater Fishers/MA. Other fishing organisations also participated in the meeting and showed satisfaction in having access to the innovation in the transportation of crabs.

Another partnership arrangement allowed for the entrance of ICMBio in the Committee for the Mamanguape River Watershed, created in 2006 by the Government of the State of Paraíba, which allowed for the opportunity to foster the implementation of the Water Resources Plan for the Mamanguape River Watershed. This fact allowed for the activities for this implementation to be in the Plan of Action (POA-2013), with possibility for progress in this sense.

It was also identified that the collaboration with public universities constitutes an important strategy for advancing the implementation of the activities in the pilot area and one that has been adopted by all areas.

In addition to these, the partnership with some municipalities was proven useful in the implementation of activities in the various pilot areas and many of these partnerships were identified in the Northern and North-eastern regions. However, the actions need more effective orientation, adequate training, and organisation of activities together with the mangrove ecosystem.

The activities developed, per product and result, and the proposals, are found in the tables below.

**4.2. Results of the Project**

Despite delays in the execution of the Project, derived principally from the change in executing agency to ICMBio and due to issues of organisational structure, the Project has presented advances.

Thus, in order to obtain expected implied outcome, strategic joint actions for the creation and strengthening of bodies such as councils and committees were necessary. To this end, working meetings and thematic workshops involving ICMBio technical personnel, representatives form institutions that work with the mangrove ecosystem, non-governmental organisations that support protected areas, other local actors, and the population involved in fishing and the collection of mangrove products were held.

**4.2.1. Results, Products, and Activities Carried Out**

Chart 2 summarises the actions, activities, and work plans developed over the course of the implementation of the mangroves in Brazil project.

It highlights the activities planned for each year since the beginning of the project, progress, and the status for each activity. Methods for testing the indicators were the subject discussed in the workshops and for some of them, the working group involved in the project suggested changes.

**Chart 2: Summary of the actions and progress of Project BRA 07G32**

| **Result 1. Conducive environment for a subsystem of protected areas for mangrove systems implemented, including financial, regulatory, and political mechanisms.** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output statement | Output targets | Current status of achievements of products *vis-à-vis* established goals | | | | Cost (US$) | | Methods of verification | | Proposal of new indicators |
| POA/2010 | POA/2011 | POA/2012 | POA/2013 | Allocated in the 2012 revision | Utilised in the period 2008-2012 | Indicators | (Y/N) |
| **Product 1.1**  Regulatory framework and corresponding operational guidelines developed for the improved management of protected areas with mangroves | 1.1.1. Studies on Socio-environmental impacts of aquiculture and the threats to mangroves and their traditional people and communities, in UC regions in Bahia, Ceará, Piauí (Parnaíba Delta), and Santa Catarina. | Included, not executed | Included, not executed | Included, not executed | - |  |  | Per cent of states with mangroves with a set of norms and guidelines for mangrove management signed and coordinated among federal, state, and municipal agencies  Regulatory framework and corresponding operational guidelines developed to improve management of protected areas with mangroves |  | - States with thematic chambers for mangrove regulation installed and running in boards and formal discussion forums  - Number of forums that act for the regulation of “socio-environmental resources” in mangroves  - Number of pilot areas with norms and guidelines for mangrove management created or refined  - Number of norms and guidelines for the regulating of utilisation of “socio-environmental resources” signed |
| **Product 1.2.**  Institutional procedures and capacities aligned with the new regulatory framework for mangrove management and coordinated with sectorial policies | 1.2.1. Study/Evaluation on the legal and regulatory framework at the federal, state, and municipal level, relative to the use and conservation of mangroves with focus on licensing, protection, economic mechanisms, budget, among others  - Production of material and education in the three spheres—local, state, and federal. | Not included | Not included | Included and executed | -  included |  |  | 2. Existence of a special group of trained staff (from IBMA, OEMAs and/or municipal organs) able to implement and utilise the norms and regulations |  | - Signed contracts, concluded execution for lots 3,4, and 5. Finalising Lots 1 and 2. 6 RESEX are demarcated  - Training for staff from competent SISNAMA organs to implement and utilise norms and regulations. |
| **Product 1.3.**  Financial strategies for management of protected areas with mangrove tested and supported by the regulatory framework | 1.3.1. Study and compilation of knowledge already published, or in an advanced state; such as UC management plans situated within or around the CIP APA, to help with the APA Management Plan  1.3.2. Identification gaps and hiring of additional consulting  1.3.3. Conducting 10 training workshops for communities representing mangrove areas for participation in the management council for the CIP APA and the Mosaic Board  1.3.4. Developing guidelines for financial mechanisms for mangrove conservation, including guidelines for the application of the ecological ICMS, compensation and valuing funds, certification and use of governmental resources and private investments.  1.3.5. Studies for the valuing of mangroves in the states of MA (RESEX Cururupu), BA (RESEX Iguape e Canavieiras), PI and MA (RESEX Parnaíba Delta), to support the creation of strategies for financing and general recommendations on PA regulations of mangroves that were successful in other countries. | Not included  Included and not executed  Not included  Included and not executed  Included and not executed | Included and not executed  Included and executed  (planning workshop integrated into APA CIP)  Not included  Included and not executed  Included and not executed | Included and executed  -  Included and not executed  Included and not executed (TDR Sustainability)  Not Included | -  -  Included  Included  (TDR Sustainability)  Not included | 53,000  49,500  59,500  45,000  154,500 |  | Number of regulations adopted for mangroves in at least:  - categories for UC management  - guidelines for management plans  - financial mechanisms  - Incorporation of mangroves in water planning  - management plans for fishing for UCs with mangroves. | -  - | - Regulation constructed in a participatory manner for mangroves in all UC categories  - Incorporation of mangrove ecosystem in water resource planning |
| **Product 1.4.**  A representative network of UCs with mangroves created in the realm of the already existing protected areas system | 1.4.1. Undertaking of thematic exchanges with UC leaders and managers  1.4.2. Mapping of socioenvironmental risk of mangroves and traditional populations on the Brazilian coast, aiming to build a network of UCs that house mangroves.  1.4.3. Mapping of the vegetal covering of mangroves in Brazil | Included and not executed  Included and not executed  Not included | Included and executed (mapping of socio-environmental risk)  Included and not executed  Included and not executed | Included and not executed  (identif., mapped. Creation of Portfolio)  Not included  Included and executed | Included  Not included  Included |  |  | Composition/source of financing in the intervention areas of the project that will develop new financing strategies | N | Identify and incorporate mechanisms for financing mangrove areas |
| **Product 1.5.**  National Plan for the Conservation and Sustainable Use of Mangroves created and formalised | 1.5.1. Activities of the Technical Chamber on Mangroves (CT) (CT) for the National Committee for Humid Zones.  a) recommendations of the mangrove CT/CZNU  b) Drafting of document on CF  c) refining of the results from the consultations  1.5.2. Drafting of National Plan for Threatened Mangrove Species | Not included  Not included | Included and executed  Included and not executed | Included and executed  Included and executed | Included  Included and executed |  |  | 5. National mangroves Pan in the Plan for Humid Areas in Brazil |  |  |

| **Result 2. Replicable models installed for the management of mangrove resources in the UCs for sustainable use in the SNUC** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output statement | Output targets | Current status of achievements of products *vis-à-vis* established goals | | | | Cost (US$) | | Methods of verification | | Proposal of new indicators |
| POA/2010 | POA/2011 | POA/2012 | POA/2013 | Allocated in the 2012 revision | Utilised in the period 2008-2012 | Indicators | (Y/N) |
| **Product 2.1.**  Management plan for fishing resources drafted at the ecosystem level in the group of protected areas in Pará | 2.1.1. Draft ecosystem diagnostic for fishing resources in RESEX marines in Pará  2.1.2. Participatory training and strengthening workshop for the Management Board for fishing resources in RESEX marines in Pará.  2.1.3. Expanded and traveling seminars on socialisation of Utilisation Plans for fishing resources and management of RESEX.  2.1.4. Training on GPS use in environmental interpretation for community members in RESEX marines.  **Activities for 2013**  2.1.5. Integrated fishing plan with ecosystem focus (return to communities, diffusion, production of materials.  2.1.6. additional and traveling seminars on socialisation of the Integrated Fishing Plan with ecosystem focus.  2.1.3. participatory fishing monitoring—definitions of fishing areas.  2.1.7. Implementation of the monitoring plan for fishing resources and communication in the marine RESEX in Pará  2.1.8. Training for board members and leaders with themes: governance and participatory management; conflict management; social organisation and community management; communication  2.1.9. Thematic Capacities (formation of community monitors for monitoring of fishing resources  2.1.10. 3 GPS and environmental interpretation training sessions (include in the monitoring activities). | Included and not executed  Included and not executed  Included and not executed  Included and not executed  Not included  Not included  Not included  Not included  Not included  Not included | Included and not executed  Included and executed  Included and partially executed  Included and partially executed  Not included  Not included  Not included  Not included  Not included  Not included | Included and partially executed  Included and executed  Included and executed  Included and executed  Not included  Not included  Not included  Not included  Not included  Included and partially executed | Included  -  -  -  Included  Included  Included  Included  Included  (See 2.1.3.)  Included |  |  | 1. Level of ecosystem management of fishing resources in Pará  -number of hectares of the integrated plan for fishing resources  -number of areas of exclusion of fishing in 3 pilot UCs. | Y  Y |  |
| **Product 2.2.**  Management plan of resources for the *uçá* crab created and tested in the Parnaíba Delta | 2.2.1. Drafting of the Management Plan for the *Uçá* crab  2.2.2. Production of material and dissemination of the Project.  2.2.3. Undertaking of workshops and meetings of RESEX and APA Parnaíba Delta (APA Council; RESEX Deliberative Council; Local Project committee.  **Activities for 2013:**  2.2.4. Completion of the VII Forum for *Uçá* Crab in the Parnaíba Delta with participation of crab fishers and staff from ICMBio Pará and Maranhão.  2.2.5. Participatory monitoring of crab areas.  2.2.6. Production of communication materials for the management plan for the *uçá* crab. | Included and not executed  Included and not executed  Included and partially executed  Not included  Not included  Not included | Included and not executed  Included and partially executed  Included and partially executed  Not included  Not included  Not included | Included and not executed  Included and not executed  Included and partially executed  Not included  Not included  Not included | Included  Included  Included  Included  Included  Included |  |  | Level of use of resources of the uçá crab in Piauí/Maranhão/Ceará  - percentage of mortality rate  - lowering in the rates of capture and maintenance in income  - application of the model |  |  |
| **Product 2.3.**  Mangrove products with aggregated value identified and potential market opportunities explored. | 2.3.1. Identification of potential community-based ecotourism opportunities and raising awareness in the Parnaíba Delta.  **Activities for 2013:**  2.3.2. Identification of potential ecotourism  2.3.3. Training transfer of technology for the capture, storage, handling, and transport of crab (green crab). | Included and not executed | Included and not executed | Included and not executed  Included and not executed  Included and not executed | Not included  Included  Included | 52,000 |  | Development and marketing of mangrove products  Number of UCs and mosaic management councils reach agreement on the levels of fishing and oversight. |  | 3. Conflict fishing areas in the preservation areas  **Indicators:**  - conflict fishing areas and  -trained community members  would be sources for verification on the improvement of quality of life  4. community members trained in the management of fishing resources |
| **Product 2.4.**  Training programme concluded to facilitate the implementation and replication of sustainable use approaches for protected areas with mangroves. | 2.4.1. Theoretical and practical courses on meliponicultura for implementation of pilot projects in crab fishing communities in the Parnaíba Delta APA.  2.4.2. Community-based ecotourism courses for implementation of pilot projects in crab fishing communities in the Parnaíba Delta APA.  2.4.3. Participation on the part of crab fishers and ICMBio technicians in Pará in the Maranhão Crab Forum in Parnaíba.  2.4.4. Project for recuperation of degraded areas caused by rice planting in mangrove areas, with presentation of alternate forms of income, such as, organic planting to exterminate the use of agrotoxic chemicals in the Delta and take out APP planting.  **Activities for 2013**  2.4.5. Courses: entrepreneurship, local market, strategies, drafting Business Plans;  2.4.6. Participation in training on community monitoring of fishing resources in Pará;  2.4.7. Technical consulting for the Pará Pilot Area;  2.4.8. Technical consulting for the Parnaíba Delta Pilot Area;  2.4.9. Business Plan for Ecotourism  2.4.10. Business Plan for crab.  2.4.11. Technical consulting for SP PR pilot area  **2.1 a 2.4 Purchases and equipment** | Included and not executed  Included and not executed  Included and not executed  Included and not executed  Not included  Not included  Not included  Not included  Not included | Included and partially executed  Included and partially executed  Included and partially executed  Included and partially executed  Included and executed  Included and executed  Included and not executed  Included and not executed  Not included | Included and partially executed  Included and partially executed  Included and partially executed  Included and executed  Included and executed  Included and executed  Included and not executed  Included and not executed  Not included | Included  Included  Included  -  Included  Included  Included  Included  Included  Included | 11,540  11,550  17,400  11,550  10,000  30,000  30,000  30,000  50,000  50,000  30,000  (see Table 3) |  |  |  |  |

| **Result 3. Improved mangrove conservation to conduct alignment of UC management with sectorial and spatial planning** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output statement) | Output targets | Current status of achievements of products *vis-à-vis* established goals | | | | Cost (US$) | | Methods of verification | | Proposal of New Indicators |
| POA/2010 | POA/2011 | POA/2012 | POA/2013 | 2012 | 2012 | Indicators | (Y/N) |
| **Product 3.1.**  Guidelines for adequate funding ordering for mangrove conservation developed and tested in a large APA and coordinated with state and regional planning processes. | 3.1.1. Drafting of technical studies to base the process of a creation of a RESEX in an area of an APA, the strategies for dissemination of the information and community mobilisation.  3.1.2. Planning and actions for raising awareness together with municipal governments and SEMA, with regards to APA zoning in Reentrâncias Maranhenses.  **Activities for 2013**  3.1.3. Technical studies to base the zoning on  3.1.4. awareness raising activities together with the state government, municipal governments and SEMA, with regards to ZEE Reentrâncias Maranheses  3.1.5. Technical Consulting for Reentrâncias Maranhenses Pilot Area. | Included and not executed  Included and not executed  Not included  Not included  Not included | Included and executed  Included and partially executed  Not included  Not included  Not included | Included and not executed.  Included and partially executed  Not included  Not included  Not included | Not included  Not included  Included  Included  Included | 160,100  26,000 |  | Number of management instruments for water resources agreed upon by the Mamanguape Basin committee that takes into consideration the quantity and quality of water for mangroves |  | Incorporation of the mangrove ecosystem in the management plan for water resources in the Mamanguape Basin |
| **Product 3.2**. Processes of water management in Paraíba developed and tested to include the conservation needs of mangroves | 3.2.1. Drafting of the Management Plan for Water Resources—Mamanguape River Watershed.  3.2.2. visual Progr. ident. Of ARIE/APA limits(via signs)  3.2.3. Drafting of the MP for Brarra do Rio Mamanguape APA and Manguezais da Foz do Rio Mamanguape ARIE (Integrated management).  3.2.4. Community Training Program for the APA/ARIE Mamanguape population—Management plan for Water Resources for the Mamanguape river and the APA/ARIE PM.  3.2.5. Technical Consulting for the Mamanguape pilot area. | Included and not executed  Included and not executed  Not included  Not included  Not included | Included and not executed  Included and partially executed  Included and partially executed  Included and partially executed  Included and partially executed | Included and not executed  Included and executed  Included and partially executed  Included and partially executed  Included and executed | Included  -  Included  Included  Included | 300,000  10,800  113.000  24,800  60,000 |  | Quantity of area defined within the environmental zoning as environmental conservation areas  **Indicator removed:**  Degree to which mangrove conservation is incorporated into Reentrancias Maranheses APAS zoning | N | Product not started in 2010 |
| **Product 3.3**. Training program drafted and in implementation for relevant planning institutions, sectorial actors and UC direction | 3.3.1. Training program for water resource management in Mamanguape River and APA/ARIE PM.  3.3.2. Training program for ZEE of APA of Reentrâncias.  3.3.3. training program in RH x PM  **3.1 e 3.2. – Purchases / Equipment** | Not included  Not included  Not included  Included and not executed | Included and executed  Included and not executed  Not included  Included and partially executed | Not included  Not included  Not included  Included and partially executed | Included  Not included  Included  Included and partially executed | 30,000  100,000  (see Table 3) |  | - Zoning restriction for sectors reflected in the UC plan.  - Number of cities in agreement with APA zoning.  - Incorporation of zoned APAs in the municipal director plans.  - % particip of principal actors in environmental zoning activities.  **Indicator removed**  % APA actors that signed formal document of adhesion to zoning regulations. |  |  |

| **Result 4. More inclusion, dissemination, and adaptive management related to mangroves** | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Output statement | Output targets | Current status of achievements of products *vis-à-vis* established goals | | | | Cost (US$) | | Methods of verification | | Proposal of New Indicators |
| POA/2010 | POA/2011 | POA/2012 | POA/2013 | Allocated in the 2012 revision | Utilised in the period 2008-2012 | Indicators | (Y/N) |
| **Product 4.1.** Inclusive Monitoring Program for Mangrove Biodiversity drafted and functioning with participation of local social actors | 4.1.1. Planning of strategies of *in situ* biodiversity monitoring in mangroves.  4.1.2. Implementation of *in situ* biodiversity monitoring program*.* | Included and not executed  Not included | Included and partially executed  Not included | Included and partially executed  Not included | Included and executed  Included | 67,500  30,000 |  | Integration of representation of private and public actors with regards to UC management for mangroves and ecosystem services provided. |  | **Proposal of new indicator:**  Social communication actions on the importance of mangrove conservation |
| **Product 4.2**. Management and Monitoring of Project created and implemented | 4.2.1. Technical Assistance in monitoring and Communication of the Project.  4.2.2. Committee Director Meeting  4.2.3. Work Meeting CN e APs  4.2.4.Seminar for Refining Project Management (M&E)  4.2.5. Tec. Consult. Reentrancias Maranhenses  4.2.6. Administrative and Financial Support, Monitoring and Evaluation | Not included  Not included  Not included  Not included  Not included  Not included | Included and not executed  Included and executed  Not included  Not included  Not included  Not included | Included and not executed  Included and executed  Included and executed  Not included  Not included  Not included | Included  Included  Not included  Included and executed  Included  Included | 50,000  9,000  20,000  20,000  30,000  50,000 |  | Frequency and quality of participative monitoring of biodiversity and mangroves |  | Number of UCs with program of monitoring implemented |
| **Product 4.3.** Dissemination, inclusion and research on management of mangrove ecosystems distributed to community, sectorial actors and to the public in general. | 4.3.1. Strategic Actions for mobilisation and communication—mangrove festival in Brazil.  4.3.2. Formation of communication nuclei for tide people.  4.3.3. Drafting of mangrove campaign on conservation and use  **Activities for 2013:**  4.3.4. Contract consultant to design and implement communication structure (int. and ext.), compiling and making available information on the Project, results, and meeting minutes  4.3.5. Production and distr. Of informative material about mangroves | Included and partially executed.  Included and partially executed.  Included and not executed  Not included  Not included | Included and executed  Included and executed  Included and not executed  Included and not executed  Not included | -  -  Included and not executed  Not included  Not included | -  -  Not included  Included  Included | 46,500  31,000  20,000  20,000  30,000 |  | Adaptive management takes into consideration results from Evaluation and Monitoring of the Project. |  | **New indicator:**  Number of public policies and good practices that consider the results of monitoring and evaluation of the Project |

**4.2.2. Feedback of M & E activities used for adaptive management**

* **Regarding Activities Monitoring and Evaluation: Application of METT Tool**

The METT or Management Effectiveness Tracking Tool is an excellent tool for monitoring and evaluation. The results of its application in 23 UCs in 2012 show its performance in the conservation unit RESEX Maracanã, the Pilot Area Salgado Paraense. It was stated that "there is a good system of M&E, and the tool is well implemented and used in adaptive management," according to answer 03 to question 26.

However, with regards to five other UCs in that area and one in Reentrâncias Maranhenses, the question went without answer, being calculated as 0 (zero). It was identified that there is not any other monitoring and evaluation in the protected area.

Among UCs, it was verified that there were 11 (eleven) characterised as having some type of ad hoc monitoring or evaluation, but not one general strategy or regular collection of results, having received a grade of 1 (one) and 4 (four) received a grade of 2. It was stated that “there is a system of M&E but there isn’t a results return for management.”

Considering that for the manager the purpose of monitoring in addition to eventual accounting would have to be the adaptation of actions to be taken, grades lower than 3 appear to reflect a situation of low utility of the instrument. Why does this situation prevail? Why are baseline information (2006-7) and comparison line information (2012) not better utilised?

Table 1 of Appendix 2 of the PRODOC talks about the “METT Analysis.” The scores are presented in average percentages for the different UCs in the clusters, according to different components of the management cycle, that is: context, planning, inputs, processes, products, result. These categories represent aggregates of the following contents of the questions.

1. **Context:** 1) Legal situation; 2) Regulations of the protected area; 3) Application of the law; 6) Demarcation of the protected area; 9) Resource invent;

1. **Planning**: 4) Objectives of protected area; 5) Design of protected area; 7) Management ; 8) common work plan; 30) monitoring and evaluation;
2. **Inputs**: 10) Research; 12) Number of staff; 14) personnel training; 15) current budget; 16) guaranteed budget;
3. **Processes**: 11) Resource management; 13) personnel management; 17) budget management; 18) equipment; 19) equipment maintenance; 20) programmes for education and raising awareness; 21) neighbour states and commercial entities; 22) indigenous peoples; 23) site communities; 25) commercial tourism;
4. **Products**: 24) installations for visitors; 26) fees; and
5. **Results**: 27) Evaluation of condition\; 28) Evaluation of access; 29) Evaluation of economic benefits”.

The scores are presented “as % of the highest score possible for each category of management effectiveness (100% = 90 points.), with the following intervals: Bad: < 25% (0 – 22,5 points); Average: 25–50% (23 - 45 points.); Good: 51–75% (46-67,5 points.); Excellent: 76–100% (68-90 points.)”.

In the Technical Commission on Mangroves Meeting, in Brasília/DF, 27 and 28 November, 2012, a presentation was made about the METT application showing that between 2007 and 2012, “11 UCs improved and 12 UCs worsened” in total scores. All pilot areas received a score (Average) in the two moments, except for the Mamanguape/PB pilot area, with a score (Good) in the two moments, in the two UCs. The number of UCs with the score of (Bad) went from 2 to 1; Average, from 14 to 16, Good, from 6 to 6; and Excellent, from 1 to 0.

The PRODOC itself recognizes that "considering that the METT tool gives each question equal weight one (excellent) assigned to a particular area by simply being demarcated to counterbalance one (bad) assigned by the total lack of budget." Even so, the project sets a goal of "70% of the pilot PAs to note METT Good / Excellent". The fact that this percentage has fallen from 30% to 26% can certainly not be considered encouraging.

However, it must be recognized that presented this way, the METT is not a very sensitive and reliable instrument.

It would be worrying to note, as seen in the presentation that after five years, scores for process and outputs are the worst and falling, while the context and planning are the best and rising. Note, however, that the outputs here named as products are just two: Dependencies for visitors, and Fees, facts that have little relevance and representation in protected areas of the Project.

More troubling is the question of equivalence between the issues in the two moments. A table displays the Project "major differences" between 2007 and 2012 forms, which are numerous, but leaves open the question of equivalence.

The evaluators, when analysing some issues, affirm the importance of the data being presented more clearly. Transparency in data presentation implies efficient processing, taking full advantage of the capabilities of information technology and the availability of information on the internet easily.

According to the presentation above, the next step is to "study the relationship between RAPPAM and METT and methods for application in protected areas with mangroves." Surveys carried out based on the Rapid Assessment and Prioritization of Protected Areas Management (RAPPAM) method were carried out by the WWF in 2005-06 and 2010 and a new survey should be done in 2015.

These surveys provide important insights, albeit limited to monitoring and formative evaluation of the project due to schedule already determined usefulness. According to information collected by the evaluators, the two instruments seem to be little known in the field.

As already mentioned, the solution of continuity of the actions of the Project, the executing agency has brought performance problems. The Project Implementation Report (PIR) for the 2011/2012 states that "During the reporting period, certain difficulties were faced by the project team because of bureaucratic and institutional standards, causing communication errors and delays." Lack of skilled staff and dedication to design are also factors that caused delays in the implementation of activities.

In addition, the staff of the UNDP office in Brazil were overwhelmed with other functions. However, a strategy to overcome similar issues has already been adopted. On the other hand, the unexpected departure of the technical staff monitoring the project also caused difficulties regarding the smooth operation of the planned actions. These difficulties have been resolved with the involvement of other technicians so as to avoid interruptions in the performance of the Project.

During the workshop held in May 2012 with all involved in Mangrove Project it was pointed out that administrative procedures and budgetary issues require further clarification.

Importantly, the Plan of Action for the Conservation of Endangered Species and Socioeconomic Importance of Mangrove Ecosystem in the Brazilian Coast (Pan Mangrove) offers opportunities for management or adaptive management, and it takes special attention to its achievement.

In the Workshop held in São Luis, May, 2012, ​​an important observation was made: "The implementation of the project of the Porto Espadarte and the oil blockages are threats to mangroves" However, the threat of Porto Swordfish has hardly been a goal of the Project, as well as other existing specific threats in the other pilot areas: real estate speculation in the Parnaíba Delta, Canal Grande Valley SP/P and large predatory in Salgado Paraense.

Other recommendations were also identified by the workshop participants as the need for territorial connection of the pilot area RESEXs Reentrâncias Maranhão. Thousands of families live off of crab and this number could be increased with the effective conservation of mangroves in this belt. Also the occurrence of problems with the endangered species, the manatee, and the concern with the artisanal fishing practiced up to 10 miles from the coast of Maranhão, was raised. the ecological importance of this area in regional, national and global context Was emphasized in the discussion, since it is considered as the largest continuous area of mangroves on the planet, called the Belt Pará-Maranhão.

It is identified, by evaluating the information obtained, that it is extremely important to strengthen joint actions and interactions between sectors of the institution and with other sectors ICMBio. So obtaining closer partnerships, especially between the institution and another from Ministry of Environment itself, such as IBAMA will make it possible to have a more effective monitoring of the coverage of mangroves, through actions in partnership with the Centre for Remote Sensing at IBAMA. Analysis of data from the institute showed, for example, the situation of the ecosystem by Mapping and Monitoring of Mangrove Cover in the states, in the years 2008 and 2009. While there is little or no difference from one year to another, it would be important to monitor the annual data to the current year in order to identify trends and take necessary measures.

Taking into consideration facts and issues that still need to be faced, attributed when design concepts based on the lack of greater coordination and integration efforts among agencies that support: Unsatisfactory (U) in the item, Monitoring and Evaluation, both in its design and as in its implementation.

The following are the results of applying the METT tool, applied in 2007 and 2012.

**Chart 3: Application of the METT Tool – 2007 and 2012**

|  |  |  |
| --- | --- | --- |
| **UCs by pilot area** | **METT**[[2]](#footnote-2)  **2007** | **METT**[[3]](#footnote-3)  **2012** |
| RESEX Arai- Peroba (F) | 49 | 24 |
| RESEX Caeté-Taperaçu (Bragança)(F) | 40 | 41 |
| RESEX Chocoaré-Mato Grosso (F) | 53 | 40 |
| RESEX Gurupi-Piriá (F) | 38 | 34 |
| RESEX Mãe Grande do Curuçá (F) | 42 | 48 |
| RESEX Maracanã (F) | 54 | 30 |
| RESEX São João da Ponta (F) | 39 | 56 |
| RESEX Soure (F) | 40 | 39 |
| RESEX Tracuateua (F) | 37 | 25 |
| **Average Sub-total Pará** | 44 | 37 |
| APA Reentrancia Maranhense (S) | 31 | 34 |
| RESEX de Cururupu (F) | 34 | 31 |
| **Average Sub-total Maranhão** | 33 | 33 |
| APA Delta do Parnaíba (F) | 36 | 44 |
| RESEX Paranaíba Delta (F) | 41 | 36 |
| **Average Sub-total Maranhão/Ceará/Piauí** | 38 | 40 |
| APA Barra do Rio Mamanguape (F) | 71 | 58 |
| ARIE FOZ do Rio Mamanguape (F) | 58 | 56 |
| **Average Sub-total Paraíba** | 64 | 57 |
| EE Juréia-Itatins (S) | 57 | 58 |
| APA Cananéia-Iguape e Peruíbe (F) | 52 | 47 |
| **Average Sub-total São Paulo** | **54** | **53** |
| APAE Guaraqueçaba (S) | 24 | - |
| APA Guaraqueçaba (F) | 39 | 47 |
| EE Guaraqueçaba (F) | 24 | 33 |
| PARNA Superagüi (F) | 50 | 54 |
| PARES Ilha do Cardoso (S) | 76 | 57 |
| APAE Guaratuba (S) | 44 | 63 |
| FLOES Palmito (S) | 42 | 66 |
| Estação Ecológica de Guaraguaçu (S) | 43 | 57 |
| PARES Boguaçu (S) | 17 | 29 |
| **Sub-total Paraná** | **40** | **48** |
| **Sub-total São Paulo/Paraná** | **43** | **49** |
| **Average per category per pilot area** | **44** | **47** |

**Chart 4: METT scores for the UCs analysed in 2012 (MTE)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UCs by Cluster** | **METT Category**[[4]](#footnote-4)**,**[[5]](#footnote-5) | | | | | | | | | |  | | **METT Total** | |
| **Context** | | **Planning** | | **Inputs** | | **Processes** | | **Outputs** | | **Outcomes** | |
| **2005** | **2012** | **2005** | **2012** | **2005** | **2012** | **2005** | **2012** | **2005** | **2012** | **2005** | **2012** | **2005** | **2012** |
| **PARÁ CLUSTER** | | | | | | | | | | | | | | |
| RESEX Araí- Peroba (F) | 67 | 53 | 60 | 40 | 27 | 5 | 53 | 7 | 0 | 42 | 56 | 22 | 49 | 24 |
| RESEX Caeté-Taperaçu (Bragança)(F) | 60 | 60 | 33 | 53 | 33 | 43 | 40 | 17 | 0 | 58 | 56 | 33 | 40 | 41 |
| RESEX Chocoaré-Mato Grosso (F) | 73 | 67 | 60 | 40 | 40 | 33 | 53 | 20 | 0 | 75 | 67 | 22 | 53 | 40 |
| RESEX Gurupi-Piriá (F) | 60 | 47 | 60 | 47 | 27 | 33 | 33 | 13 | 0 | 58 | 22 | 22 | 38 | 34 |
| RESEX Mãe Grande do Curuçá (F) | 47 | 73 | 47 | 40 | 33 | 43 | 43 | 27 | 0 | 67 | 67 | 33 | 42 | 48 |
| RESEX Maracanã (F) | 67 | 60 | 53 | 47 | 80 | 19 | 47 | 13 | 0 | 33 | 56 | 22 | 54 | 30 |
| RESEX São João da Ponta (F) | 67 | 60 | 53 | 60 | 27 | 48 | 30 | 53 | 0 | 50 | 44 | 67 | 39 | 56 |
| RESEX Soure (F) | 60 | 60 | 53 | 60 | 20 | 33 | 43 | 33 | 17 | 25 | 22 | 11 | 40 | 39 |
| RESEX Tracuateua (F) | 73 | 53 | 47 | 33 | 27 | 14 | 20 | 10 | 0 | 42 | 56 | 11 | 37 | 25 |
| **Average Sub-total Pará** | 64 | 59 | 52 | 47 | 35 | 30 | 40 | 23 | 2 | 50 | 49 | 27 | 44 | 37 |
| **MARANHÃO CLUSTER** | | | | | | | | | | | | | | |
| APA Reentrancia Maranhense (S) | 40 | 47 | 33 | 33 | 40 | 33 | 20 | 27 | 0 | 50 | 56 | 11 | 31 | 34 |
| RESEX de Cururupu (F) | 60 | 40 | 47 | 27 | 33 | 19 | 17 | 30 | 0 | 50 | 56 | 22 | 34 | 31 |
| **Average Sub-total Maranhão** | 50 | 43 | 40 | 30 | 37 | 26 | 18 | 28 | 0 | 50 | 56 | 17 | 33 | 33 |
| **MARANHÃO/CEARÁ/PIAUÍCLUSTER**[[6]](#footnote-6) | | | | | | | | | | | | | | |
| APA Delta do Parnaíba (F) | 47 | 43 | 47 | 33 | 53 | 48 | 23 | 50 | 0 | 25 | 33 | 33 | 36 | 44 |
| RESEX do Delta do Paranaíba (F) | 67 | 47 | 33 | 27 | 27 | 24 | 40 | 33 | 33 | 50 | 44 | 44 | 41 | 36 |
| **Average Sub-total Maranhão/Ceará/Piauí** | 57 | 50 | 40 | 30 | 40 | 36 | 32 | 42 | 17 | 38 | 39 | 38 | 38 | 40 |
| **PARAÍBACLUSTER** | | | | | | | | | | | | | | |
| APA Barra do Rio Mamanguape (F) | 87 | 67 | 67 | 47 | 60 | 57 | 83 | 53 | 17 | 58 | 67 | 67 | 71 | 58 |
| ARIE FOZ do Rio Mamanguape (F) | 80 | 60 | 73 | 47 | 47 | 48 | 53 | 53 | 0 | 67 | 67 | 67 | 58 | 56 |
| **Average Sub-total Paraíba** | 83 | 63 | 70 | 47 | 53 | 52 | 68 | 53 | 8 | 63 | 67 | 67 | 64 | 57 |
| **SÃO PAULO/PARANÁ CLUSTER** | | | | | | | | | | | | | | |
| EE de Juréia-Itatins (S) | 80 | 73 | 67 | 33 | 67 | 57 | 50 | 60 | 17 | 42 | 33 | 78 | 57 | 58 |
| APA Cananéia-Iguape e Peruíbe (F) | 60 | 47 | 40 | 33 | 47 | 52 | 70 | 47 | 33 | 33 | 22 | 67 | 52 | 47 |
| **Sub-total State of São Paulo** | **70** | **60** | **53** | **33** | **57** | **55** | **60** | **53** | **25** | **38** | **28** | **72** | **54** | **53** |
| APAE de Guaraqueçaba (S) | 60 | - | 33 | - | 13 | - | 10 | - | 0 | - | 33 | - | 24 | - |
| APA de Guaraqueçaba (F) | 53 | 53 | 40 | 47 | 47 | 48 | 27 | 53 | 33 | 33 | 44 | 22 | 39 | 47 |
| EE de Guaraqueçaba (F) | 40 | 40 | 33 | 27 | 27 | 38 | 13 | 33 | 0 | 33 | 33 | 11 | 24 | 33 |
| PARNA do Superagüi (F) | 67 | 40 | 47 | 27 | 67 | 38 | 43 | 33 | 0 | 33 | 56 | 11 | 50 | 33 |
| PARES da Ilha do Cardoso (S) | 93 | 73 | 93 | 53 | 60 | 48 | 67 | 43 | 67 | 58 | 78 | 89 | 76 | 57 |
| APAE de Guaratuba (S) | 73 | 67 | 47 | 67 | 47 | 62 | 30 | 67 | 0 | 50 | 67 | 44 | 44 | 63 |
| FLOES do Palmito (S) | 60 | 73 | 33 | 67 | 53 | 57 | 33 | 57 | 33 | 67 | 44 | 89 | 42 | 66 |
| Estação Ecológica de Guaraguaçu (S) | 67 | 80 | 53 | 87 | 53 | 33 | 30 | 50 | 0 | 50 | 44 | 44 | 43 | 57 |
| PARES do Boguaçu (S) | 40 | 53 | 20 | 20 | 13 | 33 | 7 | 30 | 0 | 0 | 22 | 22 | 17 | 29 |
| **Sub-total State of Paraná** | **61** | **60** | **44** | **49** | **42** | **45** | **29** | **46** | **15** | **41** | **47** | **42** | **40** | **48** |
| **Sub-total São Paulo/Paraná** | 63 | 62 | 46 | 48 | 45 | 48 | 35 | 49 | 17 | 41 | 43 | 52 | **43** | **49** |
| **Average per category by cluster** | **63** | **56** | **50** | **39** | **42** | **41** | **39** | **41** | **9** | **46** | **51** | **44** | **44** | **47** |

* **Regarding the Achievement of Project Objectives: Application of METT Tool**

**General Objective of the Mangroves of Brazil Project:**

Promote the conservation and sustainable use of mangrove ecosystems and the environmental functions and services necessary for national development and the welfare of coastal communities

The METT tool was applied before the start of the Project, in 2006-7 and in 2012. Based on these data, the evaluators selected and analysed three indicators of Results with the intention of reflecting about the reach of objectives posed by the Project.

Of the 26 UCs of the Project, 23 have baseline data and comparison lines. Two questions refer to two aspects of the overall objective of the Project, i.e. on conservation and sustainable use of ecosystems and the well-being of coastal communities. In the questions below, there are four alternatives (0, 1, 2, 3, and 4), where 4 is the more positive and 0 (or dash, or blank) indicates the absence or reverse.

The question 27 or 30 in 2012 is the impact on ecological and cultural values and biodiversity. The biodiversity and ecological values ​​refer to the ecosystem, while cultural values ​​contribute to the well-being of communities. Data analysis showed that some biodiversity, ecological and cultural values ​​are being severely degraded in some UCs.

In the analysis of other matter relating to the fact that the existence or not of UCs brought some local economic benefit, the data showed that there was some small significance to the regional economy. However, the analysis showed that the existence of one of them brought significant economic benefit to local communities due to activities undertaken by communities in the area. But, instead, the existence of another UC reduced the options for economic development for local communities, according to the analysis. Four UCs had gains; seven others had losses.

these results, which are preliminary impact indicators can be considered unsatisfactory (U), unless we improve the medium-long term.

**Purpose or Immediate Objective of the Project:** “Adopt a management strategy for protected areas tested in the field for the effective conservation of a representative sample of the Brazilian mangrove ecosystem.”

For example, question 28, number 10 in 2012, deals with the management of UCs according to their goals and, specifically, the evaluation of access and protection systems.

The analysis was on the assertion that the protection systems are moderately effective in controlling access or have their use in accordance with the PA objectives. We identified six gains and five losses.

At first, the results could be unsatisfactory. However, it is important to accurately examine more deliverables and their respective products to give a score to *effectiveness* criteria.

**4.2.3. Problems Faced in the Implementation of the Project and its Contribution**

Besides the interviews and *in situ* observations, evaluators applied a  questionnaire to be answered in writing and that consists of four questions to be answered by the coordinators of the five pilot areas. The questions and their answers are presented summarized below.

1. **What are the key external environmental issues (ecological) for the management work of UCs (created by social, environmental, political and economic factors)?**

**Salgado Paraense Pilot Area**

* Interference from parliamentarians seeking political constituency for electoral support;
* Conflicts of territories in management systems such as overfishing with nets and glaciers, especially in Marajó;
* Unplanned urbanization, and
* Growing speculation created by big oil and superports projects.

**Reentrâncias Maranhenses Pilot Area**

* Geographical extension of the APA combined with the disorganised occupation process in various of the 16 municipalities;
* The absence of local, state and federal public policies being directed to solving environmental problems such as open dumps, illegal logging, uncontrolled use of natural resources, particularly fisheries resources are still abundant in the region;
* The development model in the region can not contribute or value the same attributes and the scenic landscape (so gorgeous), the great potential for community based and ecological tourism, and the large potential supply of fishery resources (diversity of fish and shellfish);
* The impacts of anthropogenic origin in the region are illegal cutting of mangrove trees, mostly restricted to the vicinity of the towns for the construction of houses, dyeing the sails of boats and the use of tannin for tanning hides and skins, the use indiscriminate of some natural resources that threaten to disappear, such as the population of shellfish, such as mussels of (Mytella type), causing the disappearance of resources and also preventing the reproduction of numerous birds. Also occur collections of eggs of migratory birds, predatory hunting and fishing by local and people from various regions of the country, has been a constant threat to the maintenance of social biodiversity, and
* Finally, non mobilization of the area as a protected area leads to fragmentation and weakening of the few developed actions, particularly in federal UCs as Resex Quilombo Frechal and Resex Cururupu and learning and replication of these actions become innocuous when viewed from the global point of view.

**Parnaiba Delta Pilot Area**

* Housing bubble, with the acquisition of land by foreigners (mainly) for implementing real estate groups, such as allotments, hotel, resort, and developments of wind power generation in areas of high environmental fragility and of great scenic beauty (route of Emoções), areas of great potential for ecotourism and community-based tourism that could promote inclusive development of the local community, unlike the activities being encouraged by governments at all three levels;
* Loss of fisheries resources in the estuaries of the region for exploration activity by large shrimp trawling, overfishing, and increased the exploitation of the sector globally and the increased number of fishermen by the lack of alternative income, and
* Disorganised tourism

**Barra do Mamanguape Pilot Area**

* We believe that the overlapping part of the APA / ARIE Mamanguape with Indigenous Potiguara is the main problem with regards to the management of the area. Usually this takes the form of conflicts of interest relating to the management of UCs and needs of indigenous peoples.

**SP/PR Group Pilot Area**

* The Valo Grande channel - an artificial channel built in the nineteenth century to shorten the distance between the Iguape river and Porto Ribeira de Iguape. At first only a trench for transit cargo canoes, it suffered a massive increase in erosion and widening its margins. Today it turns out 70% of the total flow of the river, directly in Lagamar modifying its physicochemical characteristics and hence biodiversity, thus directly affecting the fish stocks, associated with other minor factors such as the high incidence of recreational fishing and overfishing of species of greatest economic value;
* Pollution of Ribeira river, feeder estuarine system Lagamar through the channel of Big Valley, pesticides used in farming bananas and heavy metals including lead;
* The expansion of real estate speculation in urban areas and occupation of areas of permanent preservation of hillsides, swamps and salt marshes for summer residences, housing and nautical support structures, and
* Deforestation for farming expansion of banana and real estate speculation.

1. **What are the main internal environmental problems (ecological) for the management job at the UC (created by social, environmental, political and economic factors)?**

**Salgado Paraense Pilot Area**

* Conflicts of use of fishery resources; and
* Deforestation, hunting and trapping of wild animals.

**Reentrâncias Maranhenses Pilot Area**

* Extinction of ibises and impairment of the cycle of migratory birds by human action;
* Landfill / sedimentation caused by the dumping of waste rock;
* Mercury contamination (in some places); and
* Overfishing, particularly trawling, by the fishing industry;

Among the key risk areas these stand out:

* Shifting dunes drying out mangroves, water bodies, roads and houses;
* disorderly urban growth near the coast;
* Contamination of groundwater by faecal coliforms, and

Deforestation of riparian forests.

**Parnaíba Delta Pilot Area**

* Lack of alternative income, which makes communities use natural resources for the sustenance of their families, especially in the catalytic activity of fishing and crab;
* Irregular Solid waste disposal and lack of basic sanitation, causing groundwater contamination;
* use and land cover in a disorderly manner, not respecting the master plans of the municipalities, and

Absence of a guiding document management - management plan for the Delta of APA.

**Barra do Mamanguape Pilot Area**

* Internally there are problems related to the interest in the implementation of projects that would not comply with the objectives of the unit (such as shrimp), and others who still need rules such as urban settlements and tourist developments, and
* There are also problems associated with the disposal of solid waste, occupancy of permanent preservation areas, pollution and degradation of water resources (which end up harming the endangered species that exist in the region, such as marine manatee), among other problems.

**Pilot Area SP/PR Group**

* Above all, the lack of effective management tool Unit-The Management Plan, and
* Recreational fishing, deforestation and occupation of areas of permanent preservation pollution and irregular exploitation of water sources, mining and disposal of solid and liquid wastes.

1. **Which aspects of UCs had positive change (since the beginning of implementation of the Project)?**

**Salgado Paraense Pilot Area**

* Increasing social awareness to support integrated actions and react to proposals for change, and
* Having a far more accurate diagnosis with a macro view of resources, different environments and various forms of use and socio-biodiversity and weaknesses of supply chains with a view to economic sustainability.

**Reentrâncias Maranhenses Pilot Area**

* Due to problems of implementation, we could not yet evaluate this aspect, but the articulation with the creation of the Committee was able to articulate more diverse social actors interested and committed to the implementation and achievement of results, and
* Liaison with key stakeholders in the region who are the workers in the fishing sector, understood in this context as artisanal fishermen, shellfish, fish farmers working in partnership and/or family arrangements and artisans of fishing tackle, which are organized by the Colonies, Trade Unions, Cooperatives and Fishermen Associations.

**Pilot Area Parnaíba Delta**

* The training of managers and boards of APA RESEX Delta of which were only created after the support of the Mangrove Project in Brazil, in addition to providing resources for the realization of ordinary meetings once ICMBio not have financial resources to afford with some expenses such as rental of the auditorium, meeting, passages that are fundamental to the board members who live far away can participate in meetings, making the participation of civil society represented on the boards does occur;
* The relationship between the institutions operating in the region with the most focused work we need , and this linkage is due to the Mangrove Project in Brazil, which could discuss with partners the local needs and work jointly with a more focused the goals of the conservation unit: each institution before developing their projects without sharing the information with others, and in some cases there were institutions working with similar projects that could be maximized while reducing costs and working time of partners, and
* Proximity to some communities that did not have much contact and work done, particularly with the issue of crab fishing and community-based tourism.

**Pilot Area Barra do Mamanguape**

* With the start of activities related to the Mangroves of Brazil Project (Project Signs, Water Resources Plan, and especially the Management Plan of the APA / ARIE), the relationship with communities and partner organizations narrowed too much, which also meant that management actions reached your target audience;
* The open meetings and workshops with the communities were very productive and will certainly be taken into consideration in planning the activities of UC, and
* The possibility of preparing the Water Resources Plan brought together APA institutions and partner organizations such as SUDEMA, EFSA UFPB, Watershed Committee, among others.

**Pilot Area SP/PR Group**

* The deployment and operation of the Pilot Area Technical Committee, the articulation with other protected areas in the region, notably the mosaic Lagamar state components;
* Raising awareness of traditional communities about the unit and its management tools aimed at their participation in the UC Management Council, and
* In the discussion of the management plan of the Unit's work contracted consultants.

1. **What issues and problems persist and hinder the efficient management of natural resources in the UC or need to be improved or enhanced?**

**Pilot Area Salgado Paraense**

* Increase the level of communication and coordination between government agencies and leaders.

**Pilot Area Reentrâncias Maranhenses**

* Lack of systematic survey and the updated bibliography;
* Geographical distribution of the current territory of the APA Reentrâncias Maranhão;
* Non consolidation of articulation of different actors for the proposed zoning APA Reentrâncias Maranhão.

**Pilot Area Parnaíba Delta**

* Lack of servers to work more closely with communities so environmental education and supervision in order to curb the use of predatory fishing gear;
* Lack of partnership with municipal management that could support in order to take the framework for civil servants, technical environmentalists that could be acting nearest and quickly;
* Lack of financial resources; and
* Municipal and state and federal policy that does not realize the importance of integrating projects with environmental issues.

**Pilot Area Barra do Mamanguape**

* While we do not finish the management plan for the APA / ARIE and begin (and finalize) the Water Resources Management Plan for the River Basin Mamanguape, we have many problems in implementing effective management actions in the area. We believe that these plans are basic tools of management and should be developed as soon as possible.

**Pilot Area SP/PR Group**

* Fundamentally, the lack of the Unit Management Plan.

1. **Answers to Complementary Questions**

**Pilot Area Salgado Paraense**

- no response

**Pilot Area Reentrâncias Maranhenses**

* Give speed to the administrative aspects (e.g. support for preparation and publication of terms of reference - TRs, hiring staff to perform the exclusive services of the Project), and

Articulate better actions providing opportunities for exchange between the pilot areas.

**Pilot Area Parnaíba Delta**

* The main objective of the pilot area is to develop a management plan for the uçá crab, so it is necessary to transfer unused resources in the pilot area for this product;
* closer links between partners in order to build projects after completion of the Mangrove Project, especially with the technical assistance, for without continuity communities end up losing interest because the culture is still very dependent on the state, extremely patronizing (hard to break this dependence).

The responses have highlighted the achievements of the Project in Salgado Paraense and delayed Pilot Area neighbour, Reentrâncias Maranhão as well as blocks found in other pilot areas.

When the project was beginning, the challenge in the Coastal Amazon was not so much to stop the incursions into existing mangroves bedtime as the foundation for sustainable community development in order to avoid possible future and greatest inroads. Longitudinal data show that, basically, that's what happened, at least in the Pilot Area Para Salgado.

Surveys by the instrument Rapid Assessment and Prioritization of Protected Areas Management (RAPPAM) were made in 2005/06, and again in 2010, all protected areas in Brazil. Among the units that would compose the five pilot areas, progress was much greater in Pará Salgado than in other areas, mainly in the items that indicate process as business planning and decision making, and especially research, monitoring and evaluation results, and also, to some extent, inputs, particularly human resources and infrastructure.

Data analysis shows the situation of success for the four RESEX of Pará, which, unlike almost all other PAs Project, have made important gains in the period set for the application of RAPPAM.

Areas of Research, Monitoring and Evaluation rose from zero to 26-66% in the four pilot areas. Different areas had several examples of substantial growth from zero, including infrastructure.

After the development of activities and the design has good performance, as observed in the analysis of results RAPPAM and oral reports, the Para if Salgado took off from the actual start of the project in 2010. Within the context of integrated fisheries management, the Department of Fisheries and Aquaculture (Sepaq), shown in CTAP, put into practice the technique of "basquetas."

The problems of discontinuity in the execution and management of the Project have created delays in the establishment of a management subsystem mangroves in protected areas, given the dictates of the National System for Nature Preservation Areas (SNUC). However, the actions that have been developed, where possible, go in this direction. As the project still has 2/3 of the activities to be undertaken until all the Project is considered fully implemented, the execution is forecast to reach the proposed goals. New management strategies will require will be planned to achieve Outcome 1 "The existence of conducive environment for a subsystem of APs with mangroves ..." in a comprehensive way.

It is noteworthy that in the pilot area Reentrâncias Maranhão this result is yet to start running. However, one must consider that the coordination that has been taken in the same region of the Product 1.5. The National Plan for the Conservation and Sustainable Use of Mangroves will make a great contribution to the construction of mangrove management subsystem, to the extent that the product will provide project a detailed set of information on ways to management of fisheries resources and forests mangroves.

Thus, actions involving products from 1.1 to 1.5 run the same institutional base that will be signing and sketching as public policy, to the extent that the project actions are being executed.

However, from field observations and interviews with actors and beneficiaries means that the regulatory framework for shipping crab, which should define the modes of handling, thus reducing the losses to the bars and restaurants of sale to the final consumer, will have a major impact on the dynamics of this natural resource allocation in market prices and levels of conservation of the crustacean.

The practice of transporting crabs in basquetas, in smaller quantities, which imply low rates of mortality during transport to the final consumer, shows that this is an appropriate technology.

However, care is needed in using the instrument and seek accomplish it through regulation. Among the procedures to be adopted are: to establish a new regulatory framework; pay attention to the perception of market of this new technology implies economic benefits and markets for intermediaries and end buyers. The regulatory framework for the transport of crab along with the diffusion of new means of handling the crayfish can be very promising results in the fulfilment of Output 1.1 Project.

Given the prominence of one of the five pilot areas, the salt Pará, modified to note provisionally attributed to the "achievement of objectives for Moderately Satisfactory", MS.

* **Ownership by the Country and Integration**

The creation of ICMBio during the negotiation phase of the project was an important step towards prioritizing conservation units in relation to inspection and licensing activities. However, in practical application, the whole time the team remains dedicated to monitoring, control and licensing, forcing the coordination to virtually leave the Project activities in the hands of consultants employed punctually. At central level, the institution does not have any staff that is dedicated to the project full time, as already mentioned, and turnover is high. All these factors lead to stagnation of the sense of belonging and ownership of the project by the local population and build on the importance of mangrove ecosystem for the country and its integration with other ecological subsystems population.

Shannon (2002a, 2002b) presents an excellent review for a forestry organization in the twenty-first century and that seems to be quite adequate for the case of ICMBio. Dilemmas and issues a forestry organization in today's world, everywhere are the same, namely: promoting collaborative working between different actors and partner organizations, be based on knowledge management, information and lifelong learning; be embedded in a context of continuous change and technological change, and always remain open to new processes and social, environmental and economic demands.

It is noticed that the data analysis leads to the identification of issues related to the Project and that could serve for reflection and planning to orient an organizational design. These issues are interrelated in a certain way, and depend on the other. They are:

1. Managerial and bureaucratic agility
2. Operational, functional and organisational continuity;
3. Coherence and conceptual and methodological maturing; and
4. Personnel management, considering the congruence between what is demanded in terms of management and bureaucratic ability.

1. Agility – Considering what is in the Project document and what is defined as actions to be performed, it is important to release the project actions, so that they can be fulfilled the shortest possible time: make all hiring of personnel required, all procurement of equipment and release the resources for the implementation of the planned actions and delays.

2. Continuity – The organizational need to parse the management area of Conservation IBAMA and create ICMBio made ​​the project suffered a major impact in terms of discontinuity screening and implementation of activities. However, this situation was sui generis and it is not a routine political-institutional fact. It is noticed that ICMBio experiencing a process of institutional strengthening, consolidating its bureaucratic culture, values ​​and principles and seeking its space, its content and its form, which is natural for any organization at an early age. One must remember that the discontinuity, the volatility and functional turnover hinder the implementation of a project and interfere with its performance and the success of any organization and enterprise.

3. Concept – It is important to mature a management concept Environmental Protection Area (APA) in the ICMBio and design, so that involves the construction of a methodological proposal and roadmap. Perhaps a major contribution of the project is to promote this methodological and managerial discussion on the APA as political, technical and bureaucratic management tool use-the-soil and sustainable development, and can be shared and co-managed with governments, partner organizations, states and international governmental and nongovernmental organizations.

4. Personnel – The project needs to have permanent staff who are there full time thinking, discussing, planning, collaborating, developing and executing the activities and objectives of the Project. The project can not be implemented only based on the terms of reference of the consultant, since it is necessary to have permanent staff in order to be appropriate by the institution. The design could also be a laboratory for the adoption and implementation of IT tools, such as Community Participatory GIS and Remote Sensing as a tool for planning and management of land use in protected areas, based on integrated virtual digital platforms.

* **Sustainability**

General Evaluation: **MU** (moderately unlikely: substantial risk that key results do not continue after termination of the project, some products and activities should continue).

1. **Financial Sustainability**

There is a lack of operating funds such as administration of UC and their enforcement. Other political factors and emergencies also lead to delay or impracticability of larger investments such as Water Resources Management Plan for the Mamanguape. A low financial execution of the Project is identified.

Evaluation: **ML** (moderately likely: moderate risk, but it is expected that at least some outcomes will be sustained).

1. **Institutional and governance**

Until now, the major challenges to the sustainability of efforts have been time dedicated to the project by the staff involved, i.e., intensity and continuity and institutionalization of mechanisms for management. These challenges only tend to increase with the formal termination of the Project.

Powerful economic and political interests prioritize mega-enterprises, such as the pre-salt project in the Southeast, the Port of Espadarte in Pará and that may risk the preservation of mangroves.

Moreover, new forms of management and co-management, the strategy of whole territories, completed by communities of practice and learning offer solutions to the complex problems of coordination between agencies and levels of government, in a country of vast territory as Brazil and would promote advocacy.

Evaluation: **MU** (moderately unlikely: substantial risk that key results do not continue after the end of the Project, some products and activities should continue).

1. **Environmental Sustainability**

The Coastal Amazon, which includes the Salgado Paraense and Reentrâncias Maranhenses, is the largest continuous area of mangroves in the world, with about 8,900 km2 (Kjerfve, et al, 2002). The area between Belem and Sao Luis is characterized by numerous recesses. The two capitals have suffered severe degradation of the mangrove areas (Ferreira de France, 2001; Mochel, et al, 2001). However, the area is very well preserved:

*“The northern coast of Brazil has a high diversity of ecosystems, with great ecological wealth and low degree of environmental commitment (Prost et al, 2001, p. 75). Just 100 km. downstream of Belém in Pará River, in the bay near the beginning of the Atlantic coast, there were 87 km2 of mangrove expansion (7.2%) between 1986 and 1995 (Faure, 2001, p. 44). Therefore, changes in the areas coverage of mangroves may not always be a valid indicator of the impact of design. That municipality, São Caetano of Maynooth, is considered the western boundary of the Salt Pará and "rias coastline”*, extending to the Bay of Sao Marcos and, according to experts, beyond.

However, Santana (2001, pg. 180) says:

*“the Para coastal environment has a strong dynamism, where beach erosion, dune movement and siltation of estuaries are frequent phenomena”*. She cites Fortalezinha and Algodoal village fishermen:

*“...the blame is not only on nature, but also the man who without any technical guidance removes sand, rocks and beaches to mangrove deforestation, facilitating the entry of the sea and bringing problems for fishermen who conduct their activities on the boardwalk”.*

On Maranhão, outside the island of São Luís, where digging up soil brought extensive loss of mangrove coverage,

*“the removal of mangrove areas is more significant in municipal centres and in areas where there are the shrimp farms installed”* (Mochel, 2011, pg. 112).

Recently, Furtado de Oliveira Maciel and Santana (2012) drew attention to the resumption of the controversy regarding a possible port of deep trough in the reserve area of the Great Mother Curuçá. The page of the Special Secretariat of Ports, Docks Company of Pará: [**http://www2.cdp.com.br/forms/espadarte.aspx**](http://www2.cdp.com.br/forms/espadarte.aspx)) announces:

*“The Potential of Marine Terminal Offshore of Espadarte...* a terminal region of the greater height of the mineral world”.

It seems that the Ponta da Tijoca on the island of Guarás, just two miles into the sea, the depth is 25.60 meters. In the seventies, the supposed lack of a suitable place for a harbour deep trough in Pará had taken Companhia Vale to build a super-port of the bay of Sao Marcos in São Luís, to drain the Carajás mineral. In an interview in Curuçá, director of the National Council of Extractive Populations in Pará, expressed his great concern about the real possibility of building new super-port.

In an age in which

“revolution of rising expectations" reaches even the most remote of the inhabitants of Pará and Maranhão coast, it seems the only choice is between sustainable and unsustainable development.

It is clear among young people, who, if possible, would like to "improve life" and, with few exceptions, do not participate in associations of gatherers, fishermen and farmers (note: the Delta of the lack of other options implies persistence of many young people as collectors of crabs). Even among the least ambitious people, extreme poverty is often the most attractive economic growth by unsustainable as it is, it appear that the status quo.

Evaluation: **MU** (moderately unlikely: substantial risk that key results do not continue after termination of the project, some products and activities should continue).

1. **Socioeconomic**

Risks associated with the development of large projects and the commercial shrimp cause, to keep the immunity of the indigenous area of Paraíba as the necessary and the only solution, the requirement of environmental licensing of the project. Will more efficient extraction be considered an acceptable alternative, especially by the younger generations?

Evaluation: **MU** (moderately unlikely: substantial risk that key results do not continue after termination of the project, some products and activities should continue).

1. **Catalytic role**

The structure of project implementation through its central board (Steering Committee and Technical Committee) added to the technical advice of the pilot areas demonstrate the excellent penetration that the Project has vertically and horizontally with the spheres of society communicate.

Some studies require excellent level of political-institutional articulation to its success. This is the case of integrated fisheries management in Pará, territorial planning and spatial SP / RP, national action plan of endangered species and socio-economic importance to Nationwide, the program of training of civil servants (federal and OEMAs) and continued development of management plans of PAs with mangroves. All these instruments have the potential to contribute to the on-going debate and propose solutions to issues that affect the Brazilian mangrove.

1. **Impact**

About this item, see the discussion of the achievement of the General Objective, above.

What is expected?

* In the case of the stock of natural capital, it would be acceptable to maintain constant coverage of mangroves.
* In the case of human capital, an increase or positive difference relative to some counterfactual is expected.

Basic implicit assumption: the increase in human capital, by strengthening social capital, foster the preservation of natural capital.

Alternatives:

* Advocacy: Environmentalists and extraction can advocate for increased income and human capital via other pathways, such as streamlining the exploitation of mangrove resources and equity and fairness in the distribution of benefits, avoiding major negative impacts brought by mega-enterprises.
* Adaptation: There would be ways to ensure equitable distribution of the benefits and minimize environmental damage, new developments like the superports and pre-salt? What could be done, for example, to prevent invasive species brought in by ships' ballast water harm biodiversity of mangroves, a phenomenon that tends to increase with the port construction?

Evaluation: Given the lack of direction in addition to the short time of execution of the project so far, we conclude that this question is impossible to assess at this time.

* + 1. **Project Budget**

The Total Budget and Work Plan, included as part of PRODOC, on pages 82 and 83 in the English document, shown in column GEF Outcome / Activity Atlas, besides the four planned to be achieved with the activities of the project results, the results 5 - Project Management. This result should be executed by the implementing agency, specifying as responsible for all activities the United Nations Development Programme and the Ministry of Environment.

UNDP assumes direct responsibility for the management component to help you hire the design reviews and to develop other activities of monitoring, assessment and management, and ICMBio as subordinate to the Ministry of the Environment Institute, directly responsible for the activities helping to achieve the four results provided in PRODOC.

The following are the disbursements made by the Project until 2012 and the planned activities for the year 2013 in U.S. dollars (Table 1).

The table shows the analysis of financial disbursements by year of implementation of the project, noting that the total disbursement, 27%, is presented as a low percentage compared to the budget as defined in PRODOC. The same situation is presented when analysing the financial outlay by activity and year, showing a low financial performance in relation to activities undertaken to achieve the results.

In addition, the following table shows the disbursement counterparts performed either by ICMBio, in 2012, as the counterpart funds for the programs of partner institutions committed to the implementation of the Project and planned for the year 2013.

**Table 1: Disbursements with regards to the PRODOC Budget**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **OUTCOME/**  **ACTIVITY** | | **2009** | **2010** | **2011** | **2012** | **2013** | **TOTAL** | **Budget**  **/PRODOC** | **% Disbursement** |
|  |  |  |  |  |  |  |  |  |  |
| RESULT 1 | | 200 | 26,871 | 35,978 | 112,575 |  | 175,624 | 920,000 | 19,1 |
| RESULT 2 | | 43,216 | 11,896 | 66,634 | 163,314 |  | 285,061 | 1,550,000 | 18,4 |
| RESULT 3 | | 10,993 | 4,108 | 35,123 | 27,778 |  | 78,002 | 1,332,500 | 5,9 |
| RESULT 4 | | 5,848 | 43,891 | 179,127 | 46,731 |  | 275,597 | 747,500 | 36,9 |
| RESULT 5 | | 0 | 47,710 | 78,832 | 65,891 |  | 192,433 | 450,000 | 42,8 |
|  |  |  |  |  |  |  |  |  |  |
| **TOTAL ANNUAL** | | **60,258** | **134,476** | **395,693** | **416,290** | **349,530\*** | **1,356,246** |  |  |
| **TOTAL Spent/with regards to PRODOC** | |  |  |  |  |  | **1,356,246** | **5,000,000** | **27,1** |

\* Expected.

**Table 2: Executed in 2013 and features Counterpart Funds Planned for 2013**



Description of the items included in Table 2 for counterparts

1. **Orçamento UCs:** This budget refers to the set of resources that ICMBio decentralizes for the management of each of the protected areas. This involves value items such as payment services, maintenance, transportation within protected areas, contracting entities and others.
2. **Bolsa Verde:** This government program, coordinated by the MMA, is designed for those who develop the sustainable use of natural resources in extractive reserves, national forests, federal Sustainable Development Reserves and Settlements Environmentally Differentiated for Agrarian Reform activities. Occupied by riverside communities, extractivists, indigenous peoples, *quilombolas* and other traditional communities, rural areas and other territories are also populations benefited from the program. The *Bolsa Verde* is an important step toward recognizing and compensating traditional communities and family farmers for the environmental services they provide to society.

This program was launched in September 2011 and works as follows: each quarter a benefit is awarded of R $ 300.00 to families in extreme poverty living in priority areas for conservation. The benefit is granted for two years and may be renewed. As 47% of the 16.2 million people living in extreme poverty are in rural areas, the Program aims to combine the increase in income of this population to ecosystem conservation and sustainable use of natural resources.

1. **Projetos de Cooperação Internacional complementares:** With this it is also intended to include in consideration those projects managed by ICMBio, which features both governmental and international donation projects, work to achieve goals tied to the use and conservation of mangroves. In this case, the computed values ​​relate to the project "Territorial management of extractive reserves in Amazonia Legal". This project, which had finalized its activities, worked on 4 themes: a) planning and regularization b) participative management and institutional strengthening of local organizations, c) management plans and promote sustainable production, and tracking, monitoring and dissemination of project. The activities were conducted in 20 RESEX, one of which, the RESEX Cururupu, is inserted in the Pilot Area Reentrâncias Maranhense as the Mangrove Project area.
2. **ATER:** Services for Technical Assistance and Rural Extension (ATER) for extractivist families of conservation units (UC) and Settlement Projects for Agro Extractivists in social vulnerability, located in the municipalities of the states of Acre, Amazonas and Pará, in accordance with law 12,188 of 11 January 2010 establishing the National Policy on Technical Assistance and Rural Extension (PNATER) and laid the groundwork for the implementation of the National Programme of Technical assistance and Rural Extension.

These services are part of the actions of the Programme of Rural Productive Inclusion Plan - Brazil Without Poverty, established by Decree No. 7,492, of June 2, 2011, a vector of its actions being eradicating extreme rural poverty. It represents a partnership between the Ministry of Agrarian Development (MDA), through the General Coordination of Policies To Traditional Peoples and Communities (CGPCT), the National Institute of Colonization and Agrarian Reform (INCRA) and the Ministry of Environment and its related bodies, Chico Mendes Institute for Biodiversity Conservation and Forest Service. The program is based on the process of construction, the demands and the description of services, the agreements signed by MDA during the "I Call for Forest People," named Marajó agenda. The Law ATER featuring services ATER as a "service non-formal education, continual in character in rural areas, which promotes management processes, production, processing and marketing of agricultural activities and services and non-agricultural, including agro extractivist activities, forestry and handicraft, as Article 2. The ATER therefore comprises a set in the context of rural development. Preserved Areas that will be answered by ATER Extractive include the Pilot Program Area Salgado Paraense under the Project Mangrove Brazil.

1. **Cadastramento de famílias** is diagnostic products and access to public services and policies in RESEX, Flona and RDS.

In order to identify families whose traditional way of life associated with the Conservation Units of categories Extractive Reserve, National Forest and Sustainable Development Reserve, the General Coordination of Traditional Populations / ICMBio, in technical cooperation with the Federal University of Viçosa / UFV and the Ministry of Social Development / MDS, is developing a national strategy for registering the families of these units during the year 2013. The activity has become an indicator of the Strategic Planning and integrates the product ICMBio 2.8 Project UNDP BRA/08/023. The registration will be the instrument used to define families if they have the right to manage and use the territory of protected areas and identify the public is entitled to access to public policies for Federal Protected Areas. Besides the registration of families, a diagnosis of productive activities and identification of public policies and services currently accessed by families of Protected Areas will be held. This register has 4 main points:

* a survey of households and production information and services and public policies in the field, which will be used in a digital form via tablet. This survey will be essential to obtain information about the environmental and economic diversity, especially by social subjects living and occupy these territories;
* Discussion with the traditional population at UC on the types of recipients to be adopted;
* The approval of the beneficiary profile in UC with approval of the list of beneficiary households, and
* Development of productive socio-economic diagnostics and access to public services and policies for each UC.
  1. **List of Assets Acquired with Project BRA 07/G32 Resources**

The first and second years of the project carried out a survey of the need to purchase equipment and materials in all pilot areas. Table 3 presents the list of goods that were purchased with funds from Project BRA 07/G32 for each pilot area. It also includes materials requested by the CSR/IBAMA to perform the annual mapping of mangrove cover.

* 1. **Table 3: List of Assets Acquired with Project BRA 07/G32 Resources**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **PROJECT BRA/07/G32 – Conservation and Sustainable Use of Mangrove Ecosystems in Brazil** | | | | | | | | | | | | | | | | | | | | | | | | |
| **APA CANANÉIA IGUAPE PERUÍBE – APA CIP/SP – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | | | | | | | | | | | | |
| **#** | **PROJECT #** | **DESCRIPTION OF ASSET** | **DESCRIPTION (make and model)** | **SERIAL #** | | **INVENT #** | | **OCL #** | | **ATLAS #** | | **NAME OF PROVIDER** | | **RECEIPT #** | | **CTRY OF ORIGIN** | | **LOCATION OF ASSET** | | **VALUE IN REAIS** | | | **DESTINATION** | |
| **1** | **BRA/07/G32** | **Projector** | **Multimedia Projector PWERLITE S12 PLUS EPSON H430A** | **PSQF173467L** | | **S/N** | | **15843** | | **92124** | | **ATHENAS INFORMÁTICA LTDA** | | **70** | | **BRL** | | **CGPT-DISAT** | | **1,690.00** | | | **APA CIP/SP** | |
| **2** | **BRA/07/G32** | **Video Camera** | **Video Camera Sony - DCR-SR21E** | **1725396** | | **S/N** | | **BRA10 16020** | | **87932** | | **IT COMÉRCIO E SERVIÇOS LTDA** | | **1126** | | **BRL** | | **CGPT-DISAT** | | **903** | | | **APA CIP/SP** | |
| **3** | **BRA/07/G32** | **Printer** | **Printer Colour Dell 2150CDN** | **CN-OTDGK9-71971-195-B090** | | **S/N** | | **BRA10 11519** | | **85386** | | **LTA Advising IT (USA & Denmark)** | | **INVOICE 3179** | | **USA** | | **CGPT-DISAT** | | **919,10 = U$ 505,00 (04/12/)** | | | **APA CIP/SP** | |
| **4** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 990DT - Core i 7 plus accessories (Monitor: LCD 21)** | **CPU:1YW275J-MONITOR: CN-0NJ9IT-74261-1AG-60PU** | | **S/N** | | **BRA10 11519** | | **85386** | | **LTA Advising IT (USA & Denmark)** | | **INVOICE 3179** | | **USA** | | **CGPT-DISAT** | | **2.520,7- = U$ 1,385.00 (04/12/)** | | | **APA CIP/SP** | |
| **5** | **BRA/07/G32** | **Motor** | **115 HP Outboard Motor, 115 ELPTEFI, with accessories** | **1B895273** | | **S/N** | | **16468** | | **81184** | | **BR Marine Comércio Importação e Exportação Ltda** | | **Nfe: 000.078** | | **BRL** | | **APA Cananéia Iguape Peruibe – SP** | | **27,850.00** | | | **APA CIP/SP** | |
| **Obs.: Outboard Motor** | | | **AS MENTIONED IN THE BUDGET PROCESS THE ENGINE WAS DELIVERED AT DESTINATION, IN ACCORDANCE WITH ITS SIZE AND WEIGHT, PLEASE PROVIDE A SERIAL TO BE THE SAME** | | | | | | | | | | | | | | | | | | | | | |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | | | | | **INDIVIDUAL RESPONSIBLE** | | | | | | **MATRÍCULA** | | **RG** | | | **CPF** | |
| **APA CANANÉIA IGUAPE PERUÍBE – APA CIP/SP** | | | **Rua da Saudade, S/Nº – Bairro Canto do Morro CEP: 11920-00 – Iguapé/SP – Ramal voip: 9916 e Fone: (13) 3841 2388** | | | | | | | | | **Márcio Luis Barragana Fernandes – Chefe da UC** | | | | | | **679921** | | **6032363911SSP/RS** | | | **442.070.679-21** | |
| **PROJETO BRA/07/G32 – Conservation and Sustainable Use of Mangroves in Brazil** | | | | | | | | | | | | | | | | | | | | | | | |
| **RESEX SÃO JOÃO DA PONTA/PA – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | | | | | | | | | | | |
| **#** | **PROJECT #** | **DESCRIPTION OF ASSET** | **Description (make and model)** | | **SERIAL #** | | **INVENT #** | | **OCL #** | | **ATLAS #** | | **NAME OF PROVIDER** | | **RECEIPT #** | | **CTRY OF ORIGIN** | | **Location of asset** | | **Value in Reais** | **DESTINATION** | |
| **6** | **BRA/07/G32** | **PROJECTOR** | **Projector Multimedia PWERLITE S12 PLUS EPSON H430A** | | **PSQF173518L** | | **S/N** | | **15843** | | **92124** | | **ATHENAS INFORMÁTICA LTDA** | | **70** | | **BRL** | | **CGPT-DISAT** | | **1690.00** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **7** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083382** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **8** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083375** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **9** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083369** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **10** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083392** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800.00** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **11** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083378** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **12** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083370** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **13** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083381** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **14** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083379** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **15** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083394** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **16** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | | **10F083376** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **800** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **17** | **BRA/07/G32** | **Memory Card** | **Memory Card Carta Bluechart - Gamin (10 unidades-preço unitário: RS 424,00)** | | **NCM/SH 85235110 - CST 0101** | | **S/N** | | **000.0028** | | **1887** | | **Informatic Comércio e Representação Ltda** | | **28** | | **BRL** | | **CGPT-DISAT** | | **10 x 424,00 = 4.240,00** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **18** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | | **3PH25S1** | | **S/N** | | **BRA10 11519** | | **85386** | | **LTA Advising IT (USA & Denmark)** | | **INVOICE 3179** | | **USA** | | **CGPT-DISAT** | | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **19** | **BRA/07/G32** | **Printer** | **Printer Laser Multifunctional** | | **CN-O12GF6-72211-18N-0015** | | **S/N** | | **BRA10 11519** | | **85386** | | **LTA Advising IT (USA & Denmark)** | | **INVOICE 3179** | | **USA** | | **CGPT-DISAT** | | **728,00 = U$ 400,00 (04/12/)** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **20** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 990DT - Core i 7 plus accessories (Monitor: LCD 21)** | | **CPU:2YW275J--MONITOR: CN-0NJ9IT-74261-1AG-60MU** | | **S/N** | | **BRA10 11519** | | **85386** | | **LTA Advising IT (USA & Denmark)** | | **INVOICE 3179** | | **USA** | | **CGPT-DISAT** | | **2.520,7- = U$ 1,385.00 (04/12/)** | **RESEX SÃO JOÃO DA PONTA/PA** | |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | | | | | | **INDIVIDUAL RESPONSIBLE** | | | | | | **MATRÍCULA** | | **RG** | **CPF** | |
|
| **RESEX SÃO JOÃO DA PONTA/PA** | | | **NGI de Curuça (Resex São João Ponta), Rua General Gurjão, Nº 748 – Centro, Curuça/PA, CEP: 68.750-970 Ramal Voip: 9820/9821 – (91) 9210 7378** | | | | | | | | | | **Waldemar Londres Vergara Filho – Chefe da UC** | | | | | | **1700329** | | **388720-SSP-PB** | **285678894-72** | |

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| **PROJETO BRA/07/G32 – Conservation and Sustainable Use of Mangroves in Brazil** | | | | | | | | | | | | | |
| **APA DELTA DO PARNAÍBA/PI – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | |
| **Nº** | **Nº DO PROJETO** | **DESCRIPTION OF ASSET** | **Description (make and model)** | **SERIAL #** | **INVENT #** | **OCL #** | **ATLAS #** | **NAME OF PROVIDER** | **RECEIPT #** | **CTRY OF ORIGIN** | **Location of asset** | **Value in Reais** | **DESTINATION** |
| **21** | **BRA/07/G32** | **PROJECTOR** | **Projector Multimedia PWERLITE S12 PLUS EPSON H430A** | **PSQF173483L** | **S/N** | **15843** | **92124** | **ATHENAS INFORMÁTICA LTDA** | **70** | **BRL** | **CGPT-DISAT** | **1.690.00** | **APA DELTA PARNAÍBA/PI** |
| **22** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | **10F083389** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **800** | **APA DELTA PARNAÍBA/PI** |
| **23** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | **10F083380** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **800** | **APA DELTA PARNAÍBA/PI** |
| **24** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | **10F083373** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **800** | **APA DELTA PARNAÍBA/PI** |
| **25** | **BRA/07/G32** | **GPS Navigator** | **GPS Navigator Garmin - 10R-022508** | **10F083372** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **800** | **APA DELTA PARNAÍBA/PI** |
| **26** | **BRA/07/G32** | **Memory Card** | **Memory Card Carta Bluechart - Gamin (04 unidades-preço unitário: RS 424,00)** | **NCM/SH 85235110 - CST 0101** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **15 x 424,00 = 1.696,00** | **APA DELTA PARNAÍBA/PI** |
| **27** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH15S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **APA DELTA PARNAÍBA/PI** |
| **28** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH76S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **APA DELTA PARNAÍBA/PI** |
| **29** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 990DT - Core i 7 plus accessories (Monitor: LCD 21)** | **CPU:4YW275J--MONITOR: CN-0NJ9IT-74261-1AG-60RU** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.520,7- = U$ 1,385.00 (04/12/)** | **APA DELTA PARNAÍBA/PI** |
| **30** | **BRA/07/G32** | **Motor** | **Outboard Motor 40HP, 4tempos, ME 40 ELPT EFI, with accessories** | **1C158590** | **S/N** | **16468** | **81184** | **BR Marine Comércio Importação e Exportação Ltda** | **Nfe: 000.076** | **BRL** | **APA Delta do Parnabia/PI** | **17,400.00** | **APA DELTA DO PARNAIBA/PI \*** |
| **Obs.: MOTOR DE POLPA** | | | **CONFORME COTADO NA LICITAÇÃO O REFERIDO MOTOR FOI ENTREGUE NO DESTINO, EM FUNÇÃO DO SEU TAMANHO E PESO, FAVOR PROVIDENCIAR A PLAQUETA PARA QUE O MESMO SEJA PATRIMONIADO** | | | | | | | | | | |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | **Individual Responsible** | | | **MATRÍCULA** | **RG** | **CPF** |
| **APA DELTA DO PARNAÍBA/PI** | | | **Coordenação regional 05 Parnaíba – Rua Merval Vera, 80 – Bairro do Carmo – Parnaíba/PI – Cep: 64.200-030 – Ramal voip 9841 e Fone: (86) 3321.1615** | | | | | **Silmara Erthal – Chefe da UC** | | | **1423188** | **51939336 SSP/PR** | **924.485.930-00** |

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| **PROJETO BRA/07/G32 – Conservation and Sustainable Use of Mangroves in Brazil** | | | | | | | | | | | | | |
| **APA BARRA DO RIO MAMANGUAPÉ/PB – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | |
| **Nº** | **Nº DO PROJETO** | **DESCRIPTION OF ASSET** | **Description (make and model)** | **SERIAL #** | **INVENT #** | **OCL #** | **ATLAS #** | **NAME OF PROVIDER** | **RECEIPT #** | **CTRY OF ORIGIN** | **Location of asset** | **Value in Reais** | **DESTINATION** |
| **31** | **BRA/07/G32** | **GPS** | **GPS Navigator Garmin - 10R-022508** | **10F083391** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **800** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **32** | **BRA/07/G32** | **Maritime Memory Card** | **Memory Card Carta Bluechart – Gamin** | **NCM/SH 85235110 - CST 0101** | **S/N** | **000.0028** | **1887** | **Informatic Comércio e Representação Ltda** | **28** | **BRL** | **CGPT-DISAT** | **424.00** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **33** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH65S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **34** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH35S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **35** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 790DT - Core i 5 plus accessories (Monitor: LCD 17)** | **CPU: 41TG5J - Monitor: CN-05KNHW-74261-16M-OPULT** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **1.894,62 = U$ 1,041.00 (04/12)** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **36** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 790DT - Core i 5 plus accessories (Monitor: LCD 17)** | **CPU:D41TG5J -MONITOR: CN-05KNHW-74261-16M-OPHT** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **1.894,62 = U$ 1,041.00 (04/12)** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **37** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 990DT - Core i 7 plus accessories (Monitor: LCD 21)** | **CPU:3YW275J--MONITOR: CN-0NJ9IT-74261-1AG-603U** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.520,7- = U$ 1,385.00 (04/12/)** | **APA BARRA DO RIO MAMANAGUAPÉ/PB** |
| **38** | **BRA/07/G32** | **Motor** | **2 (two) Outboard Motor 6.5CV 4 tempos completo com rabeta (1,5m) and accessories - Marca: Branco - Modelo: B4T RDP 6.5** | **Motor 1: T05011060066559 Motor 2 : T05011060064784** | **S/N** | **16472** | **81183** | **COMERSIL Comércio e Serviços Ltda** | **Nfe: 000.124** | **BRL** | **APA Barra do Rio Mamanguape/PB** | **2 x 1.900,00 = 3.800,00)** | **APA BARRA DO RIO MAMANGUAPE/PB \*** |
| **Obs.: MOTOR DE POLPA** | | | **CONFORME COTADO NA LICITAÇÃO O REFERIDO MOTOR FOI ENTREGUE NO DESTINO, EM FUNÇÃO DO SEU TAMANHO E PESO, FAVOR PROVIDENCIAR A PLAQUETA PARA QUE O MESMO SEJA PATRIMONIADO** | | | | | | | | | | |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | **INDIVIDUAL RESPONSIBLE** | | | **MATRÍCULA** | **RG** | **CPF** |
| **APA BARRA DO RIO MAMANGUAPÉ/PB** | | | **Rua do Patrício, S/Nº, Centro, rio Tinto/PB, CEP: 58.297-00 – Fone: (83) 3291 1070** | | | | | **Sandro Roberto da Silva Pereira – Chefe da UC** | | | **1364729** | **000695611 SSP/MS** | **447.140.761-91** |

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| **PROJETO BRA/07/G32 – Conservation and Sustainable Use of Mangroves in Brazil** | | | | | | | | | | | | | |
| **CENTRO NACIONAL DE POPULAÇÕES TRADICIONAIS – CNPT/MA – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | |
| **Nº** | **Nº DO PROJETO** | **DESCRIPTION OF ASSET** | **Description (make and model)** | **SERIAL #** | **INVENT #** | **OCL #** | **ATLAS #** | **NAME OF PROVIDER** | **RECEIPT #** | **CTRY OF ORIGIN** | **Location of asset** | **Value in Reais** | **DESTINATION** |
| **39** | **BRA/07/G32** | **PROJECTOR** | **Projector Multimedia PWERLITE S12 PLUS EPSON H430A** | **PSQF172486L** | **S/N** | **15843** | **92124** | **ATHENAS INFORMÁTICA LTDA** | **70** | **BRL** | **CGPT-DISAT** | **1690.00** | **CNPT/MA** |
| **40** | **BRA/07/G32** | **Video Camera** | **Video Camera Sony - DCR-SR21E** | **1725334** | **S/N** | **BRA1016020** | **87932** | **IT COMÉRCIO E SERVIÇOS LTDA** | **1126** | **BRL** | **CGPT-DISAT** | **903** | **CNPT/MA** |
| **41** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH55S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **CNPT/MA** |
| **42** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH45S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **CNPT/MA** |
| **43** | **BRA/07/G32** | **Notebook** | **Notebook Dell L2120** | **1DPZ2S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **314,64 = U$ 552.00 (04/12)** | **CNPT/MA** |
| **44** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 790DT - Core i 5 plus accessories (Monitor: LCD 17)** | **CPU:F41TG5J--MONITOR: CN-05KNHW-74261-16M-18LL** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **1.894,62 = U$ 1,041.00 (04/12)** | **CNPT/MA** |
| **45** | **BRA/07/G32** | **CPU** | **CPU Dell Optiplex 790DT - Core i 5 plus accessories (Monitor: LCD 17)** | **CPU:G41TG5J--MONITOR: CN-05KNHW-74261-16M-OPLL** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **1.894,62 = U$ 1,041.00 (04/12)** | **CNPT/MA** |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | **INDIVIDUAL RESPONSIBLE** | | | **MATRÍCULA** | **RG** | **CPF** |
| **CENTRO NACIONAL DE POPULAÇÕES TRADICIONAIS – CNPT/MA** | | | **Rua das Hortas, 223 – Centro, Cep: 65.026-470 – São Luis Maranhão – Fundos da Praça Odorico Mendes – Ramal Voip: 9724 e (98) 32210191** | | | | | **Kátia Aroucha Barros – Chefe do Centro** | | | **1447885** | **18882772001-0 SSP/MA** | **254.907.293-68** |

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| **PROJETO BRA/07/G32 – Conservation and Sustainable Use of Mangroves in Brazil** | | | | | | | | | | | | | |
| **EQUIPAMENTOS DESTINADOS AO CSR/IBAMA/DF – DATA ON ASSETS/ADDRESS FOR DELIVERY/ INDIVIDUAL RESPONSIBLE** | | | | | | | | | | | | | |
| **Nº** | **Nº DO PROJETO** | **DESCRIPTION OF ASSET** | **Description (make and model)** | **SERIAL #** | **INVENT #** | **OCL #** | **ATLAS #** | **NAME OF PROVIDER** | **RECEIPT #** | **CTRY OF ORIGIN** | **Location of asset** | **Value in Reais** | **DESTINATION** |
| **46** | **BRA/07/G32** | **Laptop** | **Laptop Dell E5520** | **3PH85S1** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **2.284,1(\*) = U$ 1,255.00 (04/12)** | **CSR/IBAMA/DF** |
| **47** | **BRA/07/G32** | **Printer** | **Printer Colour Dell 2150CDN** | **CN-OTDGK9-71971-16A-B090** | **S/N** | **BRA10 11519** | **85386** | **LTA Advising IT (USA & Denmark)** | **INVOICE 3179** | **USA** | **CGPT-DISAT** | **919,10 = U$ 505,00 (04/12/)** | **CSR/IBAMA/DF** |
| **UNIDADE/UF** | | | **ADDRESS/CEP/TELEPHONE** | | | | | **INDIVIDUAL RESPONSIBLE** | | | **MATRÍCULA** | **RG** | **CPF** |
| **CSR/DIPRO/IBAMA/DF** | | | **O referido Servidor do IBAMA virá bucar o equipamentos aqui no ICMBio. (61) 3316 1812** | | | | | **George Porto Ferreira – Coordenador Geral de Monitoramento Ambiental** | | | **142325-0 (IBAMA/DF)** | **3524123 SSP/SC** | **018.018.789-94** |
| **Obs.:** | | | **AS REFERENCE TERM AGREEMENT BETWEEN THE CENTER OF REMOTE SENSING - CSR / IBAMA MANGROVE AND DESIGN OF BRAZIL (ICMBIO) FOR "PRE-EXISTING UPDATE MAPPING MANGROVE BRAZILIAN" (ANNEX), HAS REQUESTED THE ACQUISITION OF SUCH EQUIPMENT. PLEASE TAKE NECESSARY STEPS FOR THE an instrument LOAN OR OTHER TYPE, BECAUSE THE EQUIPMENT SHOULD BE IN PLACE OF A PROVISION IN IBAMA CSR FOR THAT STAFF CAN DESELVOLVER THE PROPOSED ACTIVITIES.** | | | | | | | | | | |

**5. Conclusions and Recommendations**

* 1. **Conclusions**

The analysis of data on the activities and results achieved by the implementation of the "Conservation and Sustainable Use of Mangrove Ecosystems in Brazil" Project led to the conclusions regarding institutional levels of planning, programming, and implementation of the project actions, which can thus be synthesized and identified into problems related to:

- institutional issues at the central level;

- institutional issues at the regional level;

- issues of articulation and institutional communication between the central and regional levels;

- issues of articulation and inter-institutional partnerships; and

- issues regarding the continuity of the Project and achievement of goals established in the PRODOC.

With regard to the institutional issues at the central level, it was identified that the actions related to the mangrove ecosystem are performed by different sectors within the institution. This fact leads to the need to identify and establish intra-institutional linkages in order to seek to improve the interaction between them and the action plans that involve such activities among sectors.

Thus it was concluded that there are several problems related to the interaction between activities that are similar or directed toward the same goals. Activities related to the technical and administrative councils and to actions set in the PRODOC and in other strategic instruments of discussions such as the Chambers of Environmental Compensation (Câmaras de Compensação Ambiental - CCA) need to be worked seamlessly.

The Chamber of Environmental Compensation (Câmara de Compensação Ambiental - CAA), as is known, congregates revenue from different projects or activities impacting the environment.

Discussions in the chamber on the issues arising from projects and uses of mangroves are of paramount importance, since potential projects and activities on the Brazilian coast have direct impact on the mangrove ecosystem. Especially those activities envisaged for the implementation of the Pre-Salt (Pré-Sal) and the Development Acceleration Program (Programa de Aceleração do Crescimento - PAC). These impacts transcend national level and have an impact on the global level, making relevant the thematic discussions within the chambers of the SNUC. Therefore the requirement of registration and disclosure of decisions.

Moreover, it is considered that the Steering Committee and Technical Committee should be alert constantly on the preparation and implementation of the programs included in the Mangrove Project. Both have convergent and complementary actions to consolidate sectorial policies and establishing clear guidelines for mangroves. While the Steering Committee tends to better articulate the political and institutional agendas, the Technical Committee brings the day-to-day knowledge produced in the mangrove areas. Hence the agendas of both must be compatible. It is important that the Steering Committee be more responsive to the debate on the ecosystem and discuss solutions to problems or conflicts that arise from the execution of the Project.

It was concluded that a Thematic Group under the Project should be created to encourage the training of specialized personnel of the ICMBio. The exchange of knowledge between experts of the institution and others from national and international levels can lead to more effective actions of the institution on issues related to the mangrove ecosystem.

It was identified that the protocols and methodology used at the federal level must incorporate initiatives that promote interaction with networks of environmental initiatives in regional, state and municipal levels, since much of the UCs with mangroves belong to the states.

As regards to the **institutional issues at the regional level** and to the implementation of the activities proposed by the PRODOC, flaws in the integrated management were identified, i.e., lack of coordination between regional and institutional actions in the specific management mechanisms adopted in the ICMBio. This coordination should promote agreements with the State Environmental Organizations (OEMAs) and municipal environmental agencies as they build integrated management strategies.

It is considered of paramount importance the integrated and coordinated management between federal, state and municipal levels, identifying flaws or gaps in the definition of responsibilities and overlapping competencies in the different levels. It was concluded that the precepts of the National Environmental System (SISNAMA) must be observed and applied by states and municipalities.

It was also concluded that the Technical Councils of the Pilot Areas (CTAPS) are of paramount importance and problems with its continuity after the completion of the Project were identified. It is necessary that a space for reflection and discussion at the regional level is ensured and that other spaces such as watershed committees, community groups or management councils that have already been legitimized be maintained.

In the case of problems related to **issues of institutional articulation and communication between the central and regional levels**, the fragility of the communication between these levels was identified. It is causing difficulties in monitoring and recording of actions planned and implemented to achieve efficiency and good execution of the Project. It is extremely important that everyone involved in the project are informed about the procedures required for the proper performance of the project.

The articulation and communication of rites and processes between the central level (headquarters) and local levels (CRs and UCs) inherent to the execution of the project was considered by the assessment as frail and derived from problems such as staff turnover and bureaucratic problems or from the establishment of mechanisms of communication networks that delay the achievement of the results of the project and reduce the efficiency of actions.

Regarding the **aspects of articulation and establishment of inter-institutional partnerships**, the problems identified were unawareness of agenda and initiatives to interact with actions of other ministries or institutions aimed at reducing risks on the mangrove ecosystem. These articulations and partnerships can contribute to the better use of financial resources and personnel of the Mangrove Project in Brazil. The co-financing of activities proposed by the PRODOC need to be taken into consideration and be treated seriously.

It is considered important that the instances of co-management and territoriality supported by the Project and the ICMBio are integrated into national inter-ministerial policy and CTAP, the watershed committees, and councils of UCs. The concomitant strengthening of various sectors is important to increase awareness about the importance of mangroves.

As mentioned above, the creation of a Thematic Group that can continue the discussion on the issue of mangrove after the end of the Project is still present in inter-institutional issues. It will be able to incorporate discussions about the daily life of other mangrove specialized institutions that seek a better spatial management of mangrove and better access to and production of information.

It was concluded that there is a lack of publication and dissemination of knowledge about the mangrove ecosystem and that this issue should be discussed within a Thematic Group. There are significant studies on areas of mangroves in the world developed by research and academic institutions that are of national interest. This exchange of knowledge must be embodied and disseminated among the instances of the Project and the environmental institutions belonging to SISNAMA.

It was found that the lack of a Communication and Dissemination of Information on Mangrove Ecosystem Plan brings consequences such as lack of visibility and recognition of the socioeconomic and environmental importance of mangroves and the actions proposed by the Project.

Regarding **the aspects related to the continuity of the Project and the attainment of the established goals in the PRODOC**, the conclusions obtained from the analysis of the results achieved and from the activities of the Project are extremely relevant. However, it was concluded that most of the activities and results proposed by the PRODOC were not developed and that they should be implemented. Also there are unspent funds that can be efficiently used.

Thus, as already shown in the analysis of the financial performance of the Project, the funds used were on the order of about 20% of the total fund from the GEF. Yet, as mentioned, many political and institutional problems caused the delay of the implementation of the proposed activities.

Based on the arguments already presented, it is necessary to extend the duration of the project, which would require a period of time around 24 months to complete the activities contained in the PRODOC and achieve the established goals.

* 1. **Recommendations**

As recommended above in relation to an extension of time for completing the activities and achieving the results proposed by the Project document "Mangroves of Brazil", it is recommended:

1. that this proposed time period is used effectively to develop priority activities and to the establishment of a timeline. Strict adherence to deadlines and execution plan is required.

With respect to the implementation of **proposed Plans and Programs**, it is recommended to:

1. conclude and implement the Plan of Action for Conservation of Endangered Species and Socioeconomic Importance of Mangrove Ecosystem in the Brazilian Coast (PAN Manguezal) in the following areas:

* Southern and South-eastern Regions;
* North-eastern Region and Espírito Santo; and
* Northern Coastal Region.

1. conclude the Integrated Management Plan for Fisheries Resources with ecosystem approach for all the nine (9) marine extractive reserves (RESEX), followed by their evaluation and implementation.
2. promote and strengthen inter-institutional partnerships for the development of the Water Resources Management Plan for the Mamanguape Pilot Area, seeking to reduce political and institutional risks that could derail investments that contribute to the conservation and sustainable use of mangrove ecosystems.
3. Prepare the Management Plan for the *Uçá* Crab and disseminate it widely.
4. Implement Business Plans for Mangrove Resources. It is recommended to carry out procedures such as diagnosis of business opportunities for mangrove biodiversity products.
5. It is recommended, above all, that support be given to the implementation of the Business Plan for the mangrove products, since the implementation is perhaps more important or as important as the completion of the Business Plan itself. The implementation will not only study the economic feasibility, but also the conditions for the marketing of these products. Thus, the actions of the plans for *uçá* crab (business and management) must transcend the Parnaíba delta area, since replicability is important and desirable both as a requirement of the PRODOC as well as due to the identified socioeconomic demand.
6. Develop and implement the National Mangrove Programme. After it is developed and implemented, it is recommended that managers are attentive to the establishment of agreements with states in order to promote the achievement of the Programme according to the indicators in the PRODOC.
7. Regarding actions in the pilot areas and considering the results of the workshops in the years 2012 and 2013 and the pre-evaluation of the Project in February 2013, in which the results indicated poor performance of the activities planned for the *Reentrancias Maranhenses* Pilot Area, it is recommended:

* The immediate decision on pending issues relating to this area, since the poor performance has brought consequences for the management of the ecosystem as a whole.
* In addition, the opportunity to build an appropriate economic and ecological zoning that bring benefits to other areas and the management of this instrument is lost.

1. Develop and implement a Communication, Publication and Dissemination of Project Actions Plan. This should increase the visibility and recognition of the importance of the ecosystem, as already mentioned.
2. With respect to an area of on-going discussions on the issues of the mangrove ecosystem, it is recommended:

* to identify and promote alternative spaces and receivers of information and decisions to the mangroves, such as the creation of the Theme Group, as proposed in the conclusions; and
* regarding the legal and regulatory framework for conservation and sustainable use of mangroves in federal, state and local levels, it is recommended to be attentive to the periodic enhancement of their provisions.

1. Considering the existence of financial resources already available to the activity of reconciling water spaces management instruments and mobilization of state, regional and local partners, it is recommended:

* to strengthen and promote the Technical Councils of the Pilot Areas (CTAPs), strengthening the bond between water resources and CTAPs/Ucs.
* to stimulate the technical and financial performance relating to these issues, considering that there is evidence of the impact of poor management of water resources over the mangroves and the loss of quality *habitat* for endangered species such as the manatee.

1. Regarding the **Monitoring, Evaluation, and Land Management**, it is recommended:

* to conclude and assess proposal for monitoring biodiversity in federal UCs harbouring mangroves and to provide technical support to the implementation phase of the Programme;
* to establish modern and participative forms of management, such as co-management and integral territories, complemented by practice and teach communities that provide solutions to the complex problems of coordination between agencies and levels of government. And also to establish result-oriented management procedures;
* to establish and implement permanent monitoring and evaluation systems for learning and control, using IT tools in an efficient, transparent and friendly manner;
* to establish efficient instruments of monitoring and control of mangroves that promote greater attention to the coverage monitoring system to reduce implementation risks of mega-projects, with collaborative work of an ICMBio Thematic Group; and
* to use geospatial digital tools to facilitate land management, whether in matters of conflict management or different types of land use and natural resources.

1. Regarding **administrative and institutional** considerations, it is recommended:

* to follow a Procurement Plan of both material and human resources to improve the performance of the Project, given the characteristics of the staff of the institution, as already mentioned. The plan must be linked to the expected outcomes for the Project.
* to strengthen the executing agency through the incorporation of qualified staff and full-time dedication to the project for greater institutional involvement that results in continuity and institutionalization of actions.
* to set financial strategies for conservation actions and sustainable use of mangrove ecosystems through strengthened institutional partnerships and promote decentralized management of technical and managerial financial decisions, as far as possible.
* to establish more effective administrative and financial mechanisms for achieving better operational, technical, and financial performance with transparency, consolidation, and reporting of data and results.
* GEF administrative and financial tools must be used in the Brazil Mangroves Project. These already consolidated instruments provide conditions for recording and monitoring, reducing risk of impact on financial sustainability and continuity of the Project (POA, Operational Manual, and Co-financing); and

the very early preparation of all staff for conducting final evaluation and implementation of the 3rd phase of the Management Effectiveness Tracking Tool (METT), taking advantage of their results as guidelines for processes and decision making.

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**7. Appendices**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix 1** | | | | | | | |
| Co Financing in Cash, Proposed and Effective, by Source and Disbursements of Co-financing (US$ 1000) | | | | | | | |
|  | Co-financing | | | | | | Disbursements |
| Co financing | UNDP | | Governments | | NGO | | Total |
| (type/source) |  |  |  |  |  |  |  |
|  | Proposed | Effective\* | Proposed | Effective\* | Proposed | Effective\* | Proposed |
| Lost fund |  |  | 6490,451 |  | 75 |  | 6565,451 |
| Credits |  |  |  |  |  |  |  |
| Loans |  |  |  |  |  |  |  |
| Capital |  |  |  |  |  |  |  |
| Non donating instruments |  |  |  |  |  |  |  |
| Other types |  |  |  |  |  |  |  |
| General Total |  |  |  |  |  |  | 6565,451 |
|  |  |  |  |  |  |  |  |
| Exchange rate used: |  |  |  |  |  |  |  |
| US$1 = R$2.20 |  |  |  |  |  |  |  |
| \* No funds for drafting of project(PPG) | | |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Appendix 2** | | | | | | | |
| Co Financing not in Cash, Proposed and Effective, by Source and Disbursements of Co-financing (US$ 1000) | | | | | | | |
|  | Co-financing | | | | | | Disbursements |
| Co-financing | UNDP | | Government | | Ngo | | Total |
| (Type/Source) |  |  |  |  |  |  |  |
|  | Proposed | Effective\* | Proposed | Effective\* | Proposed | Effective\* | Proposed |
| Lost fund |  |  | 8375,241 |  | 405 |  | 8780,241 |
| Credits |  |  |  |  |  |  |  |
| Loans |  |  |  |  |  |  |  |
| Capital |  |  |  |  |  |  |  |
| Non donating instruments |  |  |  |  |  |  |  |
| Other types |  |  |  |  |  |  |  |
| General total |  |  |  |  |  |  | 8780,241 |
|  |  |  |  |  |  |  |  |
| Exchange rate used: |  |  |  |  |  |  |  |
| US$1 = R$2,2 |  |  |  |  |  |  |  |
| \* not controlled by the Project | | |  |  |  |  |  |

**Appendix 3**

**Terms of Reference**

**BRA 07/G32 – Brazilian Mangroves**

**Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil (PIMS 3280)**

**Atlas Project No.00055992**

**Terms of Reference**

**Mid-Term Evaluation**

**August 2012**

|  |  |
| --- | --- |
| Country(ies): | Brazil |
| ATLAS Award ID: | 00055992 |
| PIMS Number: | 3280 |
| GEF Focal Area: | Biodiversity |
| GEF Strategic Objective: | SO1- SP2 |
| GEF Budget (USD): | 5,000,000 |
| Co-Financing Budget (USD): | 15,345,692 |
| Project Document Signature date: | July 31, 2008 |
| Date of first disbursement: | October 29, 2009 |
| Original Planned Closing Date: | August 2013 |
| Executing Agency: | ICMBio/MMA/IBAMA |
| Date of Project Closure | August 2013 |

# INTRODUCTION

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

The Monitoring and Evaluation (M&E) policy at the project level in UNDP/GEF has four objectives:

* to monitor and evaluate results and impacts;
* to provide a basis for decision making on necessary amendments and improvements;
* to promote accountability for resource use;
* 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 applicable policies for UNDP/GEF projects, all GEF-funded projects implemented by UNDP are subjective to a mid-term and a final independent evaluation. According to the Project Document of the project Effective Conservation and Sustainable Use of Mangrove Ecosystems in Brazil PIMS 3280 mid-term evaluation is foreseen.

The current Terms of Reference of the Mid-Term Evaluation of the Brazilian Mangroves Project outline what is expected from the Evaluation Team/Evaluator and briefly reflect key aspects of the project and its background. For any description on methodology, procedures and content of the evaluation report reference is made to the UNDP Evaluation Guidance for GEF Financed Projects (Annex 1).

## Brief project description

Mangrove ecosystems are among the most productive on earth, supporting globally significant biodiversity and providing resources and environmental services that underpin economic activities and ensure the environmental integrity of coastal areas. Moreover, their role in increasing the resilience of coastal ecosystems, communities and economic activities to climate change is increasingly recognized. Despite their importance, Brazil’s mangroves are vulnerable to a number of anthropogenic threats. The result is the loss of mangrove habitats and the provision of resources on which many communities and sectors depend. The project addresses this problem by tailoring existing protected area management tools in the National System of Conservation Units (SNUC) to address the specific characteristics of mangrove ecosystems and increase capacities for their implementation, thus establishing minimum standards and improved approaches to mangrove conservation and sustainable use across the country. In doing so it would provide the operational consolidation of a sub-set of mangroves PA based on field tested innovative management approaches in both sustainable use and strict conservation categories thus advancing the maturation of the SNUC. The result would be direct conservation benefits to 568,000 ha of globally significant mangroves, positive impacts on the livelihoods of some of the poorest segments of Brazilian society and a framework through which lessons learnt could be replicated to all Brazilian mangrove ecosystems and others globally.

The long term goal of this project is the conservation and sustainable use of Brazil’s mangrove ecosystems and the environmental services and functions important for national development and the well-being of traditional coastal communities. The Project objective is to contribute to this goal by providing a field tested protected area management strategy that is adopted for the effective conservation of a representative sample of mangrove ecosystems in Brazil. This will be achieved through four Outcomes: (i) The enabling environment for a sub-system of mangrove ecosystem PA is in place, including policy, regulatory, and financial mechanisms. This will also provide an enabling environment for the implementation, sustainability and replication of the Project strategy (ii) Replicable models are in place for the management of mangrove resources in SNUC sustainable-use protected areas. This will focus on environmental and pro-poor issues through working with communities to improve the sustainability of their livelihoods; (iii) Conservation of mangroves is improved by piloting the alignment of UC management with sectorial and spatial planning through a landscape-based approach. This will tackle barriers to the PA approach from a sectorial perspective; and (iv) Mangrove-related outreach, dissemination and adaptive management will be increased. This will focus on M&E and information generation for adaptive management of mangrove PAs and their resources. The Project is executed by Chico Mendes Institute for the Conservation of Biodiversity – ICMBIO, in cooperation with Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), Brazil’s Ministry of the Environment (MMA), Ministry of Fisheries and Aquaculture (MPA), with UNDP acting as the GEF implementing agency.

# OBJECTIVES OF THE EVALUATION

The Mid-Term Evaluation (MTE) will be conducted according to guidance, rules and procedures for such evaluations established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects (Annex 1). A key principle of the evaluation is that it must provide clearly documented evidence and analysis, and unbiased assessment.

With the objective to strengthen the project adaptive management and monitoring, mid-term evaluations are intended to identify potential project design problems, assess progress towards the achievement of objectives and make recommendations regarding specific actions that might be taken to improve the project. As such the MTE provides the opportunity to assess early signs of project success or failure and prompt necessary adjustments. Another objective of the MTE is to ensure accountability for the achievement the GEF objective. Through the identification and documentation of lessons learned (including lessons that might improve design and implementation of other UNDP/GEF projects) an MTE also enhances organizational and development learning.

The main stakeholders of this MTE are Chico Mendes Institute for the Conservation of Biodiversity – ICMBIO, Ministry of the Environment (MMA), Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), National Centre of Traditional Populations (CNPT), National Water Agency (ANA), Ministry of Agricultural Development (MDA), Secretary of Family Agriculture (SAF), Brazilian Agricultural Research Corporation (EMBRAPA), Federal University of Maranhão (UFMA), Brazilian Service on Support of Micro and Small Enterprises (SEBRAE), Traditional populations (artisanal fishermen, crab collectors, seafood collectors, family farmers), Secretariat for Science and Technology and the Environment (SECTAM, Para State), Secretariat for the Environment and Natural Resources (SEMA/GEMA, Maranhão State), Secretariat for the Environment and Natural Resources (SEMAR; Piaui State), Secretariat for the Environment (SEMACE, Ceará State), Special Secretariat for the Environment, Water and Mineral Resources (SECTMA/SUDEMA, Paraíba State), Secretariat of the Environment (SMA, São Paulo State), State Secretariat of the Environment – (SEMA/IAP, Paraná State), local governs and local communities inside or near Protected Areas.

# SCOPE OF THE EVALUATION

The evaluation will cover the five major criteria which are relevance, effectiveness, efficiency, results and sustainability. These five evaluation criteria should be further defined through a series of questions covering all aspects of the project intervention, broken out in three main sections:

1. Project Formulation: Logical framework, Assumptions and Risks, Budget (co-finance) and Timing.
2. Project Implementation: IA/EA supervision and support, monitoring (including use of tracking tools) and evaluation, stakeholder participation, adaptive management.
3. Achievement of Results: Outcomes, Impacts, Catalytic Effect, Sustainability, Mainstreaming (e.g. links to other UNDP priorities, including related support programmes set out in the UNDAF and CPAP, as well as cross cutting issues).

The UNDP Evaluation Guidance for GEF Financed Projects (Annex 1) details which of the project components need to be rated as well as a definition of the six point rating scale (from Highly Satisfactory to Highly Unsatisfactory).

# PRODUCTS EXPECTED FROM THE EVALUATION

The evaluation team is expected to deliver three products as described in the Guidance (Annex 1).

* An Inception Report
* Oral presentation of main findings of the evaluation to UNDP CO and Project Team before the mission is concluded in order to allow for clarification and validation of evaluation findings.
* Evaluation report which is to be in line with the Report Outline described in the Guidance.

# METHODOLOGY OR EVALUATION APPROACH

The EF methodology is to follow the Guidance (Annex 1) and the Evaluation Team is to present a fine-tuned proposal in the Inception Report which is to be discussed with the UNDP-Brazil country Office and the projects Coordination Unit.

A list of documents to be reviewed by the Evaluation Team is attached in Annex 2.

# EVALUATION TEAM AND PROFESSIONAL ABILITIES REQUIRED

The mid-term evaluation will be undertaken by 2 external evaluators and must be performed in close cooperation with the Coordination Team of Brazilian Mangroves Project, which will assist and support with documents and all information needed for the evaluation process.

**6.1. Consultant 1**

In general terms this consultant should: ensure the assessment is carried out in an objective way to provide an external perspective to the immediate environment of the project, from his/her international experience. Should lead the aspects of *management, financial, administrative; financial sustainability and aspects linked to social/poverty.*

Specifically he/she will:

* Assess the capacity of the different instances of the project implementation, carefully reviewing the ability to carry out their specific responsibilities;
* Evaluate how different instances, are related among themselves and as maintained a clear definition of roles and responsibilities;
* Assess managerial, financial and administrative aspects of the project including the compliance with the rules and procedures of the administrative system, financial and project reporting, making sure they are aligned with the financial rules and regulations of UNDP and GEF, and the public procurement rules when it applies. (includes co-financing);
* Evaluate the cost effectiveness of the methodologies used by the project;
* Evaluate the design of the project, its relevance and progress towards the objectives set;
* Assess the achievement of impacts, especially in relation to the populations of the pilot areas, financial sustainability and institutional capacity;
* Make management recommendations to improve the efficiency of execution especially related to institutional aspects; planning; monitoring and evaluation.

**6.2. Consultant 2:**

* Evaluate the different aspects of the project such as sustainability, ownership, efficiency, and design with reference to technical aspects (e.g. actions are correct for the ecological problems of the mangroves, the UC management aspects are relevant and technically well-conceived);
* Assess the achievement of impacts, especially in relation to at least the following aspects:
  + the ecological aspects (benefits for systems of mangroves and biodiversity);
  + the inputs to strengthen the management of UC;
  + the inputs to improve the SNUC;
  + advances to internalize the lessons as part of the regulatory framework of the SNUC
* Make technical recommendations to improve the efficiency of actions especially at the pilot level and systemic transformation of these changes at the systemic level.

**6.3. Eligibility Criteria and Technical Competencies for the External Evaluator**

Education: University degree in Environmental Sciences, Administration or related fields.

**Experience (mandatory):**

* At least 3 years’ experience in fields related to the assignment at national and/or international levels;
* At least 3 years’ experience in monitoring/evaluation of project of international technical cooperation;
* Demonstrated experience in multi-disciplinary and inter-institutional projects;
* Proficiency in Portuguese and English is required (oral and written);
* Post-graduate studies in related topics.

Desired:

* Familiarity with sustainable development and environmental issues in mangroves areas;
* Familiarity with the goals and procedures of international organizations, in particular those of the GEF, and the national (IBAMA, MMA, MPA, ICMBio), and regional organizations related to project activities;
* Excellent oral and written presentation skills with capacity to communicate effectively with different stakeholders and different target groups;
* Experience with communication, information systems, and institutional procedures;
* Knowledge on the Brazilian environmental system;
* Ability to formulate questions, set priorities and implement plans consistent with project interests;
* Good knowledge of main office computer applications.

The consultants in charge of the MTE will be held to the ethical standards referred to in the Guidance (Annex 3) and are expected to sign the Code of Conduct (Annex 3) upon acceptance of the assignment.

# IMPLEMENTATION ARRANGEMENTS

## Management Arrangements

The MTE is a requirement of UNDP and GEF and solicited and led by the *UNDP-Brazil* as GEF implementing agency. The *UNDP-Brazil* has overall responsibility for the coordination and logistical arrangements of the evaluation as well as day-to-day support to the evaluation team (travel, accommodation, office space, communications, etc) and timely provision of per diems and contractual payments. The *UNDP-Brazil* will also organize the site missions (travel arrangements, meetings with key stakeholders and beneficiaries, interviews, field trips). The evaluation team will be briefed by the UNDP Country Office and the Regional Coordination Unit (RCU) upon the commencement of the assignment, and will also provide a terminal briefing. Other briefing sessions may be scheduled, if deemed necessary.

Payment modalities and specifications: The evaluators will be contracted directly from the project budget. Payment will be 50% at the submission of the first draft to the UNDP-CO, UNDP-GEF RCU and PT, and the other 50% once the final report has been completed and cleared by both the UNDP-CO and UNDP-GEF RCU. The quality of the evaluator’s work will be assessed by the UNDP-CO and UNDP-GEF- RCU. If the quality does not meet standard UNDP expectations or UNDP-GEF requirements, the evaluators will be required to re-do or revise (as appropriate) the work before being paid final instalments.

This Term of Reference follows the UNDP-GEF policies and procedures, and will be agreed upon by the UNDP-GEF RCU, UNDP Country Office and the Project Team. The final report must be cleared and accepted by UNDP before being made public, therefore, the UNDP-CO and UNDP-GEF-RCU will have to formally clear the report (as per the Approval Form in Annex 4).

## Timeframe, resources, logistical support and deadlines

The total duration of the evaluation will be 30 days according to the following plan:

Preparation before field work: (2-4 days including travel time)

* Acquaintance with the project document and other relevant materials with information about the project (PRODOC, Inception Workshop Report, Quarterly Progress Reports, PIRs, Baseline Tracking Tools, Steering Committee’s reports and minutes, Annual Operational Plans (AOPs/POAs), any additional M&E report, Terms of Reference of ongoing studies, etc);
* Familiarization with overall development situation of country (based on reading of UNDP - Common Country Assessment and other reports on the country);
* Inception Report preparation, including methodology, in cooperation with the UNDP Country Office and the Project team;
* Initial telephone discussion with UNDP-GEF-Regional Technical Advisor.

Mission to pilot areas: (12 -15 days)

* Meeting with UNDP Country office team;
* Meetings with key stakeholders in country;
* Collection and review of all available materials with focused attention to project outcomes and outputs in general and per pilot area;
* Visit to Project sites: Salgado Paraense (Pará state), Reentrâncias Maranhenses (Maranhão state), Delta do Parnaíba (Maranhão/Ceará/Piauí states), Foz do Rio Mamanguape (Paraíba state), São Paulo/Paraná states.
* Observation and review of completed and ongoing field activities (capacity development, awareness /education, sustainable use demonstration activities, community development, etc);
* Interviews with key beneficiaries and stakeholders, including representatives of local authorities, local environmental protection authorities, local community stakeholders, etc.

Obs.: Protected areas by project sites:

* Salgado Paraense:
* RESEX Araí Peroba, RESEX Caeté Taperaçu, RESEX Gurupi-piriá, RESEX Mãe Grande do Curuçá, RESEX Maracanã, RESEX São João da Ponta, RESEX Soure, RESEX Tracuateua.
* Reentrâncias Maranhenses:
* APA Reentrâncias Maranhenses, RESEX Cururupu.
* Delta do Parnaíba:
* APA Delta do Parnaíba, RESEX do Delta do Parnaíba.
* Rio Mamanguape:
* APA Barra do Rio Mamanguape, ARIE Foz do Rio Mamanguape.
* São Paulo/Paraná:
* EE de Juréia-Itatins, APA Cananéia-Iguape-Peruíbe, APAE de Guaraqueçaba, EE de Guaraqueçaba, PARNA Superagui, PARES Ilha do Cardoso, APAE de Guaratuba, FLOES do Palmito, EE de Guaraguaçu, PARES do Boguaçu.

Draft report (6-8 days): To be provided within two weeks of mission completion

* Final interviews / cross checking with UNDP CO, UNDP RCU and Project team;
* Drafting of report in proposed format;
* Telephone review of major findings with UNDP CO and UNDP-GEF RTA;
* Completing of the draft report and presentation of draft report for comments and suggestions within 1 month.

Final Report (2 days)

- Presentation of final evaluation report for the Project coordination Team and special guests will held in Brasília.

## 8. ANNEXES

## Annex 1: UNDP Guidance on Evaluation of GEF Financed Projects (Version for external evaluators)

## Annex 2: List of Documents to be reviewed by the evaluators

## Annex 3: Evaluation Consultant Code of Conduct Agreement Form

## Annex 4: Evaluation Report Clearance Form to be completed by CO and RCU and included in the final document

## Annex 5: Selection/ Evaluation Criteria

## Annex 1: UNDP Guidance on Evaluation of GEF Financed Projects (Version for external evaluators)

## Annex 2: List of Documents to be reviewed by the evaluators

* PRODOC
* Inception Workshop Report
* Quarterly Progress Reports
* PIRs – Plan Implementation Report (2010, 2011 and 2012)
* Baseline Tracking Tools
* Steering Committee’s reports and minutes
* Annual Operational Plans (AOPs/POAs)
* Local consultant’s report
* Terms of Reference of ongoing studies:
  + regulation and legislation,
  + national plan of threatened species,
  + monitoring of threatened species,
  + management plan of the APA/ARIE Mamanguape,
  + fishery ecosystem management,
  + business plan for communitarian tourism,
  + business plan for crab (caranguejo-ucá),
  + management plan for krab (caranguejo-ucá),
  + economic sustainability of protected areas with mangroves ecosystem,
  + water resource plan
  + Mangroves festival survey
* CEO endorsement request
* Tripartite minutes
* List of technical reports produced and or commissions
* Complete set of METT with the baseline and midterm values
* Financial data including co-funding data and audit reports
* Existing operations manual

## Annex 3: Evaluation Consultant Code of Conduct Agreement Form

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people’s right not to engage. Evaluators must respect people’s right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders’ dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

**Evaluation Consultant Agreement Form[[7]](#footnote-7)**

**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** \_\_     \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Name of Consultancy Organization** (where relevant)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at (place)on

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Annex 4: Evaluation Report Clearance Form to be completed by CO and RCU and included in the final document**

Reviewed and Cleared by

***UNDP Country Office***

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***UNDP- GEF- RCU***

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Annex 5. Selection/ Evaluation Criteria**

The proposal submitted will be disregarded in breach of the provisions of this Notice: file 1 containing the CV and File 2 containing the Proposed Price.

The final criteria for this procurement process will be TECHNICAL CAPACITY and PRICE for the final evaluation and selection.

1. **CLASSIFICATION OF THE TECHNICAL PROPOSALS (CV AND INTERVIEW)**

The maximum score in the Technical Qualification is 100 (one hundred) points.

Qualification criteria are divided into 02 (two) steps:

1. **Step 1 (qualification / no scoring)**: analysis of the CV relating to compliance with the mandatory requirements specified in the Terms of Reference.

Candidates who do not meet the minimum mandatory criteria described in Item 6 of the Term of Reference will be disqualified at this stage.

1. **Step 2 (classification / scoring)**: CV analysis and Interview.

The criteria for CV analysis are contained in the table below. Only will be analyzed the resumes of candidates accepted under Step 1 of the Qualification.

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria for Scoring - 2nd Step of the Technical Qualification** | | | |
| **Criteria** | **Score\*** | **Weight** | **Maximum Score** |
| Postgraduate education level. Authors or co-authored book, book chapter and /or scientific articles on topic related to the object of the present consultancy | 1 to 5 | 6 | 30 points |
| Experience and/or technical knowledge on evaluation or project management of international technical cooperation | 1 to 5 | 6 | 30 points |
| Experience in the preparation and elaboration of international reports for long term environmental projects | 1 to 5 | 6 | 30 points |
| Experience in multi-disciplinary and inter-institutional projects | 1 to 5 | 2 | 10 points |
| **Maximum score of the 2nd Step of the Technical Qualification** | | | **100 points** |

\* The score will be determined according to the following concept:

* 5 points - excellent
* 4 points – very good
* 3 points - good
* 2 points - satisfactory
* 1 points - poor

On the evaluation:

The Evaluation Committee will be composed of at least three members who assign individual evaluation scores. The final score of the consultant under evaluation will be the weighted average of individual scores of the evaluators.

Individual scores will be awarded in accordance with the information submitted in the candidate's Curriculum Vitae and their performance in the interview. Therefore, it is important that candidates clearly indicate in their CV the professional experience required in both the qualification and classification phases, so that the evaluation committee may conduct a proper analysis.

The interview will serve as inputs for the application of the score provided in the table above and will be the moment tat the evaluation committee will collect general information and ask about the availability of the consultant for the task.

The interview will be conducted by telephone, Skype or other remote communication device available. Applicants will be notified with a minimum of 24 hours, via e-mail or telephone, the date and time for the interview. The interviews will have at most one hour.

1. **CLASSIFICATION OF BUSINESS PROPOSALS (PRICE) – FINAL**

Only the business proposals (price) of the candidates who receive the final Technical Score with a minimum of 70 points in Step 2 (Review and Interview Course) will be taken into consideration.

The final Score – FS of the process will be given by the sum of the final Technical Score – TS multiplied by a factor of 0.70, with the PS Score of the price proposal multiplied by the factor 0.30, i.e:

FS = TS x 0.70 + PS x 0.30

The score of the Price Proposal – PS will be calculated according to the following:

PS = 100 x LPP / Ppe

where:

PS = score of the price proposal

LPP = lowest price proposal

Ppe = price proposal under evaluation

The lowest price proposal will score one hundred (100).

It will be selected the proposal that achieves the higher final Score.

1. **SPECIAL CONSIDERATIONS**

This procurement will be conducted by UNDP, following the rules and guidelines of the organism (simplified selection and procurement through IC).

In accordance with the rules of the United Nations is prohibited the hiring, in any capacity, of civil servants of the Public administration, at Federal, State, District or Municipal level, direct or indirect, as well as employees of its subsidiaries or controlled entities.

**Appendix 4**

**Itinerary and summary of field visits**

Walker, who lives in Brasilia, did several interviews in the federal capital, sometimes accompanied by Borges.

On 05/12/2013, Walker traveled to Curitiba - PR , where they did two interviews. Then traveled to Iguape - SP, meeting with Borges, and the two made visits and conducted interviews in Iguape and Cananea - SP. They travelled by boat.

On 8-9/12/2013, the two traveled to Curuçá - PA . Borges remained in the area , then traveling to Braganca - PA for a technical meeting of the Project. Walker traveled to Belém where he conducted site visits and acquired relevant books.

On 12/12/2013, Walker traveled to Sao Luis – MA, where he made visits and returned to Brasilia on 15/12/2012 . Borges returned home to Bragança, in Tocantins.

Borges traveled to Sao Luis - MA on 07/01/2013, to visit the project and the pilot area.

On 09-10/01/2013 , Borges and Walker traveled to Parnaiba -PI to attend a meeting of CTAP, conduct interviews and visit the pilot area by boat (mainly Maranhão).

On 13-14/01/2013, the two traveled to Joao Pessoa -PB, for interviews and field visits. Returned to Brasilia on 16/01/2013, and conducted interviews 17 and 18/01/2013. Borges returned home in Tocantins.

**Appendix 5**

**Reviewed Documents**

1. Prodoc
2. Inception Workshop Report
3. Quarterly Progress Reports
4. PIRs – Plan Implementation Report (2010, 2011 and 2012)
5. Baseline Tracking Tools
6. Steering Committee’s reports and minutes
7. Annual Operational Plans (AOPs/POAs)
8. Local consultant’s report
9. Terms of Reference of ongoing studies:
   * Regulation and legislation,
   * National plan of threatened species,
   * Management plan of the APA/ARIE Mamanguape,
   * Fishery ecosystem management,
   * Business plan for communitarian tourism,
   * Business plan for crab (caranguejo-uçá),
   * Management plan for crab (carangueijo-uçá),
   * Economic sustainability of protected areas with mangroves ecosystem,
   * Water resource plan,
   * Mangroves festival survey.
10. CEO endorsement request
11. Tripartite minutes
12. List of technical reports produced and/or commissions
13. Complete set of METT with the baseline and midterm values
14. Financial data including co-funding data and audit reports
15. Existing operations manual

**Appendix 6**

**List of interviewees**

|  |  |  |
| --- | --- | --- |
| **Name** | **Entity** | **Location** |
| **SÃO PAULO/PARANÁ GROUP** | | |
| Márcio Luis Barragana Fernandes | ICMBio | Iguape-SP |
| Paulo Roberto Castella | SEMA/PR | Curitiba-PR |
| Wilson Loureiro | UFPR | Curitiba-PR |
| Yara Schaeffer Novelli | USP | São Paulo-SP |
| **SALGADO PARAENSE** | | |
| Walmir Junior | ICMBio, Analista Ambiental | Mãe Grande de Curuçá |
| Fernando Repinaldo | ICMBio | Bragança |
| Sandro Borges | ICMBio, Ilha do Marajó | Soure |
| Patrick Passos | SEPAq, Governo do Estado do Pará | Belém-Pará |
| José Adalberto Torres de Morais | EMATER-PA | Curuçá-PA |
| Waldemar Vergara | ICMBio, RESEX São João da Ponta | São João da Ponta |
| Denis Domingues | Consultor do Projeto Manguezais | Bragança |
| Sandra Regina Pereira Gonçalves | Vice-Presidente da Associação Mãe Grande de Curuçá – AUREMAG | Curuçá-PA |
| Celia Regina das Neves Favacho | CNS (Conselho Nacional das Populações ExtratIvistas), Diretora,  e secretária nacional das Mulheres Extrativistas. | Curuçá-PA |
| Márcia Pimentel | UFPA | Belém |
| **REENTRÂNCIAS MARANHESES** | | |
| Alberto Cantanhede | CAPAM (Centro de Apoio aos Pescadores Artesanais do Maranhão) | Colônia de Pescadores do Taim, Maranhão |
| Ana Karina Soares | ICMBio | São Luis do Maranhão |
| Kátia Barros | ICMBio | São Luis do Maranhão |
| Marcelo Derzi | ICMBio | São Luis do Maranhão |
| Flávia Rebelo Mochel | UFMA | São Luis do Maranhão |
| Clarissa Morreira Coelho Costa | SEMA | São Luis do Maranhão |
| Antonio Paiva da Silva | UFMA | São Luis do Maranhão |
| Dianna Sanny Santos Ribeiro | UFMA | São Luis do Maranhão |
| **PARNAÍBA DELTA** | | |
| Antônio Pereira da Silva | IBAMA – Chefe do Escritório Local | Parnaíba |
| Eugenia Medeiros | ICMBio – Coordenadora Regional | Parnaíba |
| Antônio Julio | Associação dos Catadores de Caranguejo da Vila Velha | Delta do Parnaíba |
| Edvania Gomes de Assis | Universidade Federal da Paraíba | Parnaíba |
| Flavio Crespo | Universidade do Estado do Piauí | Parnaíba |
| Laurindo Rodrigues | Embrapa | Parnaíba |
| Veronica | SUDEMA – Governo da Paraíba | João Pessoa |
| Shirley Amélia da Silva Leão | SEMA/Maranhão | São Luis do Maranhão |
| **BARRA DO MAMANGUAPE** | | |
| Sandro Roberto de Silva Pereira | ICMBio, Coordenador (demissionário) da APA Barra do Mamanguape | João Pessoa |
| Lovania Secco Werlang | Assessora Técnica – Secretaria de Meio Ambiente e Recursos Hídricos da Paraíba | João Pessoa |
| Mirela Motta | IFPB | João Pessoa |
| Bruno Eloi Dunde | Superintendente – IBAMA-PR | João Pessoa |
| **BRASÍLIA** | | |
| Luis Fernando Tividini | MDA – Coordenador Geral de Ações de Apoio ao Cooperativismo e Associativismo | Brasília-DF |
| Matteus Martins | MDA – Coordenador Geral de Apoio a Comércio e Negócios Territoriais | Brasília-DF |
| Mauro Ruffino | GOPA/ICMBio | Brasília-DF |
| Rômulo Mello | ICMBio | Brasília-DF |
| Fernando Tatagiba | MMA | Brasília-DF |
| Roberto Gallucci | MMA | Brasília-DF |
| Adriana Leão | ICMBio | Brasília-DF |
| Mara Nottingham | ICMBio | Brasília-DF |
| Mauro Oliveira | ICMBio | Brasília-DF |
| Rosenely Diegues Peixoto | PNUD | Brasília-DF |
| Carlos Ferreira A. Castro | PNUD | Brasília-DF |
| Helton Nonato | GEF-ICMBio-PNUD | Brasília-DF |
| Ricardo Jatobá | PNUD | Brasília-DF |
| Renata Calazans | PNUD | Brasília-DF |
| Maúricio Marcon | IBAMA, ex-ICMBio | Brasília-DF |
| **PANAMÁ** | | |
| Helen Negret | GEF-PNUD | Panamá |

**Appendix 7**

**Socio-environmental and Economic questionnaire**

United Nations Development Programme

Mid-Term Review of the Brazil Mangrove Project

December 2012

1. What are the key external environmental issues (ecological) (from outside) to the management work of UC (created by social, environmental, political and economic factors)?

2. What are the main internal environmental problems (ecological) (produced within the area) to work management UC (created by social, environmental, political and economic factors)?

3. Which aspects of UC had positive change (since the beginning of implementation of the Project Mangrove Brazil?).

4. What issues and problems persist and hinder the efficient management of natural resources at UC?

5. What aspects need to be improved further during the remaining time of implementation of the Project?

Strategic Actions which should be developed by the project for the Pilot Area Salgado Paraense?

|  |  |
| --- | --- |
| Action | Priority (1 for the least and 5 the most priority) |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**Appendix 8**

**Evaluation Consultant Agreement Forms**

**Evaluation Consultant Agreement Form**

**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** \_\_Robert Kenyon Walker\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Name of Consultancy Organization** (where relevant)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed in Brasilia, Brazil on 12 November 2012.

**Evaluation Consultant Agreement Form**

**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** \_\_Vag-Lan Gomes Borges\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Name of Consultancy Organization** (where relevant)**:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.**

Signed at Paraíso do Tocantins, Tocantins, Brazil on 12 November 2012.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Appendix 9**

**Evaluator CVs**

**CURRICULUM VITAE - SUMMARY**

**MARY DAYSE KINZO**

**February 2013**

**PROFILE:**

**MARY DAYSE KINZO**

CI: 538564 - SSP / DF Date of dispatch: 25/05/95

CPF: 104780431-04

**Address:**

Cond. Villages Dawn, Conj. 14, Home 05

South Lake, Brasília - DF

CEP: 71680-351

Phone: 61-367 6150 or 9982 2095

Email: marydayse@gmail.com

1. **EDUCATION**

1996 - **Post-Doctorate in International Cooperation** - getting scholarship from CNPq, John Hopkins University, WashingtonThesis:.

1986 - **PhD in Political**Sociology,Victoria University of Manchester, England, UKCommission..

**"Small Producers and the State: Agriculture in the Amazon Frontier**Getting Doctoral scholarship from CNPq and charge license to the  Division of the State of Mato Grosso / SUDECO-MINTERSociology:..

1982 - **Master in** Department of Social Sciences at UNB

Thesis: **"Colonization and Transformations in the Class Structure: In the Squatters**Settlers".Was supported by SUDECO / MINTER, were given part-time work for the realization of the Master-.

1972  Undergraduate Social Sciences, FMU, Sao Paulo-...

2009  Undergraduate Legal, IESB, Brasilia Sciences

**2 SPECIALIZATION COURSES**

1988 - **Strategic Planning and Regional Development,** United Nations Centre for Regional Development (UNCRD), Nagoya, Japan

1974 - **Hospital**Planning,USP, São Paulo3...

1993 - **Social**Marketing,John Snow Incorporated / USAID, Boston / USA

**LANGUAGES**

Portuguese (native language), English (fluent), Spanish (fluent), French (Average)Policy..

1. **PROFESSIONAL ACTIVITIES**

1988-1997 - University of Brasilia, Professor, Institute of Political Science and International Relations

Major Disciplines taught: Scientific Methodology,  Public and International CooperationProvost:.

1993-1997 - Advisor in the Office of the Rector of the University of Brasilia for International Affairs,  Professor João Claudio TodorovAgreement.

1988-1989: Advisor to the Presidency of the IPEA for monitoring and evaluation of projects Public Policy  . cooperation between the Brazilian government and the World Bank and UNDP / UN

1988-1990: Courtesy of UNB for the United Nations - UN, called the National Representative of the United Nations Fund for Women (UNIFEM - UNDP) for the organization of representative office in Brazilactivities:.

- Main  monitoring, evaluation and planning projects for income generation in nine states: Acre, Rondônia, Amazonas, Pará, Minas Gerais, Rio Grande do Norte, Pernambuco, Paraíba and Rio de Janeiro.

1978-1988: Employee of SUDECO / MINTER

I was part of the Working Group for the Division of the State of Mato Grosso, where even Professor at the State University of Mato Grosso, Mato Grosso do Sul current and, in 1978, came to Brasilia as part of . Commission Division of the State of Mato Grosso then integrated into the staff of SUDECO, area regional planning

1. **CONSULTANCY ORGANISATIONS The**

**Areas of Consulting:** Project Formulation, Monitoring and Evaluation along areas: institutional analysis, traditional communities, regional development and smallholders in agriculture, health sector - Amazon, Midwest and Northeast of Brazil

1989-1990:..National Officer, UNIFEM / UNDP, Brazil, representative responsible for Women and Development Projects

1990-1991: National Consultant to the Fund United Nations Population Fund (UNFPA), Brazil

1993:..International Consultant for the Inter-American Development Bank (IDB)

- Mission in Nicaragua "Small Farmers Cooperatives Associated, or other forms of association in Nicaragua," basic data for the formulation of the Rural Development Programme for Small and Medium Producers

1993-1994:..International Consultant for the Inter-American Development Bank for IICA / IDB

- Project on "Women Producers of Food Production in Small Rural": Rural Area of Northeast Region Brazil1998:..

1995: International Consultant for the European Union (EU)

- Formulation of a proposal for the structure of a social program for Brazil

from 1995 to  Participation of the 1st phase of Project RESEX, with the Institute for Society, Population and Nature (ISPN ) who coordinated the project and whose focus was to support 4 Resex PPG7 (BM)

1997:..Consultant for monitoring and evaluation of programs of International Cooperation, UNDP

- Includes, among others, the AIDS-I Project and support the formulation of AIDS-II;

- Institutional Project Evaluation of UNDP Cooperation (Health Care, Ministry of Health) that gave rise to ANVISA and FUNASA, and

- New Frontiers Project Evaluation Cooperative (NCBP) of the Ministry of Agriculture / UNDP which recommended formulating the ProNaF,

1997: Consultant to review the Technical Cooperation Project PRODEAGRO / UNDP.  loan Brazilian Government / World Bank

1998-2000,Agreement:Technical Advisor of the Institute for Society, Population and Nature (ISPN)

- Biodiversity of the Cerrado Biome Project

1999:.Consultant for institutional analysis of the formulation of the Sustainable Development Program of the Pantanal, held with the Pantanal Program, IDB / state of Mato Grosso and Mato Grosso do Sul, hired by TCBR - BrasiliaEvaluation..;

2006 - 2009, VIGISUS Project Phase-2, with completion on December 31, 2009

**Coordinator of Planning, Monitoring and**

- Team memberBase **VIGISUSProjectII - Indigenous**Health, **Loan Agreement - Bank / FUNASA** - Ministry of Health - having built the baseline Project and established procedures for planning, monitoring and evaluation of the 2nd. Project Phase VIGISUS / World Bank-FUNSA-.

2011  Consultant UNDP / CDES - Presidency of the Republic for the planning and discussion of the Rio +20 Conference, from July to December/2011-.

2012  Short Term Consultant STC / STT - World Bank / Washington, SOCD-Social Development - Fee-BRL1100 - **Gender Review of the World Bank Sustainable Development, Portfolio in Brazil,** May and June  2012

2012-.Consultant for Final Evaluation of Project BRA 08/003 State Plans for Prevention and Control of Deforestation, UNDP / MMA with funds donation from the Embassy of Norway, November and December 2012-.

2013  Consultancy for Project Evaluation BRA 08/002, Management of Federal Extractive Reserves in the Brazilian Amazon, UNDP / ICMBio with features Donation Norwegian Embassy, ​​March and April 2013Republic.

1. **JOBS - CURRENT POSITIONS**

2010-2011 - **Director of the**Amazon,linked to the Sub-Secretariat for Sustainable Development of the Secretariat of Strategic Affairs of the Presidency of the

- Coordinated the hiring, monitoring and evaluation consultancies on socio-environmental issues, as backing for proposing policies and / or proposals for bills related to issues of family farming, extraction, vulnerability and adaptability to climate change along the riverine population of the Amazon, and other land issues.

2004-2005 **- Advisor for International Affairs** to the Minister of Social Welfare, February 2004 until January 2006, developing as major activities:

- Area Supervisor of the International Office of the Minister of Social Welfare, Ordinances MPS/GM/314 19/03 / 04 and Ordinance MPS/GM/772 27/04/2005;

- Deputy Coordinator of the Working Group on Reconstruction of the Register of INSS benefits

- Project Formulation "Security without Borders", coordinating the Working Group on the implementation of the Project Amazon region

- Contestant Working Group Northern Corridor

**OTHER ROLES AND FUNCTIONS**

**MINISTRY OF NATIONAL INTEGRATION**

* June 2002 until March 2003 he served as **Secretary of Regional Integrated Programmes** of the Ministry of National Integrationnominated.

* April 2002 to June 2002: **. Minister of State for National Integration**

* April 2002: appointed **Executive Secretary of the Ministry of National Integration**2002:.

* April 2001 to April  held the post of **Secretary of Regional Integrated Programmes of the Ministry of National Integration2001.**

* January 23 until April   held the post of **:.Secretary for Regional Integration and Development of the Ministry of National Integration**

* March 2000 to January 2001 - He served as **Director of the Department of Regional Policies of the Department of Regional Development** - **Ministry of National**Integration,responsible for discussing guidelines and formulation of the Proposed National Policy for Regional Integration and Development of the Ministry of National Integration2003:..

**MINISTRY OF ENVIRONMENT**

* April to October **Chief of Staff of the Secretariat of the Amazon from the Ministry of Environment**
* October 2003 to February 2004: **Sub-Program Coordinator for Tropical, PPG7 Forests,** developed by the Ministry of Environment and resources of the Group of 7 and administration of UNDP-.

**FUNASA  MS / World Bank**

* January 2006 to December 2009, he served as **Coordinator of Planning, Monitoring and Evaluation Project Surveillance of Indigenous People, VIGISUS II,Health** the Loan Agreement between the World Bank and the Brazilian Government, Phase II ProjectStrengthening:..

1. **SELECTED PAPERS**

"Social Marketing and Logistic Management Information System," 1993

"Institutional  program Organizational capacitación Propuestas de Proyectos y,

"1993."Asociaciones Gremiales y Bodies Base Attention los Pequenos Producers: Social una y Fuerza en la Transición Economic Cooperative,.

"1993"Proposed Organizational Capacitación Business: Managers Cooperativists, "1993.

"The Merger Issues" Women in Development "in Performance of International Organizations: Understanding the" Why "and Knowing" How,"1993.":.

The Agricultural Sector   The Contribution of Women in Food Production,

"1993,"To do not say I did not say Women: Resolutions Adopted by the General Assembly and the UN Social and Economic Council on**Women's,**"1994."

Rhetoric and Reality of the United Nations Resolutions on the Status of Women,

Gender Report"1995."- Word Bank Sustainable Development Projects

**"8-.. Attached to**CV:

**Experience and Activities: Amazon Region**

1 **and Thesis Titles:**

Postdoctoral Fellow in International Cooperation, John Hopkins, Washington, USA, 1995University.

- PhD in Political Sociology,  of Manchester, UK, 1986

Thesis:. **"Small Producers and the State:. Agriculture in the Amazon Frontier**

**-** Master in **Sociology:"Colonization and Transformations in the Class Structure:In the Squatters Settlers ", to research in the areas of Sinop , Colíder and Newfoundland, State of Mato Grossoregion:..**

2 **Experience in implementing projects in the Amazon**

1. Co-ordination Team "Internal Migration" Commission's Division of the State of Mato Grosso, work with the states of the Midwest (Ministry Interior / SUDECO) mainly Mato Grosso and Rondônia, 1978-1987.
2. Project Coordination "Woman in rubber plantation," research conducted in the State of Acre as a representative of the United Development Fund for Women (UNIFEM) and multidisciplinary team of consultants, 1990.
3. Coordination of Project Review and Strategic Development (PRSD), UNFPA / United Nations, 1991.
4. Advisor to the Rector of the University of Brasilia, coordinating negotiations for inclusion as a member of UNB UNAMAZ and stock research at the Center for Amazonian Studies, UNB , 1995-96.
5. Advisor of the Federation of Industries of Brasília (FIBER), coordinating research for the implementation of the Project Market in the Midwest (MERCOESTE.)

This design was characterized by the effort to mobilize the productive sectors, communities and political classes, to the pursuit of sustainable development of the West-Australian region which integrate the states of Acre, Goias, Mato Grosso, Mato Grosso do Sul, Rondônia, Tocantins and the Federal District.

A major strategic programs that supported the emergence and effective participation of Presidents of Federations of Industries Amazon (Mato Grosso and Rondônia) was the embodiment of a proposed road corridor that extends from the Mato Grosso, reached the Pacific Ocean. The main objective of this proposal was the economic optimization of the transport of agricultural products of industry and agriculture to importers, 1997. Countries

1. Coordination and Review PRODEAGRO PLANAFLORO, the cooperation agreement between the Governments of the States of Mato Grosso and Rondonia loan agreement World Bank and Federal Government, 1997.
2. Coordinating Team Review Project, in particular, the "Project New Frontiers of Cooperatives", including actions with the Amazon, UNDP / Ministry of Agriculture, 1998.
3. researcher and coordinator of Member component Policies Public Project **"Conservation and Management of Biodiversity in Cerrado",** DFID / Institute for Society, Population and Nature (ISPN), including areas of the Amazon, 1999.
4. Contestant Search on "Socio-Economic Survey" Extractive Reserves, ISPN / CNPT-IBAMA, 1999.
5. participating Member of the Covenant ISPN / Amazonis-MMA Secretariat for preparation of **Agenda 21 of the**Amazon,1999.
6. coordination of the Strategic Plan of Action of the creation of the Amazon and the Amazon Development Agency as National Secretary for Programs Integrated Regional Development, Ministry of Integration, 2000-2002.
7. coordination of multidisciplinary teams for actions Meso definition of territories and of their actions.

mesoregion constituted in the space where they sought the participation of local actors in the development of productive activities and education, in accordance with the capabilities and resources available and the search for effective interaction between the various governmental programs, characterizing the actions of integrated local development (DLIs) process.

Such actions performed in Meso spaces were more effective than actions developed in macro-regional level. Among the "Programs Integrated and Sustainable Development of Differentiated Mesoregions" implemented with funds approved, each of which, like the PPA programnamely:.

mesoregions Among those are located in the Amazon,

* + Mesothe Upper Solimões
  + MesoRiver Valley Acre
  + Mesoregion Surrounding Manaus
  + Mesoregion Islander Lower Amazon
  + Mesoregion the Parrot's Beak.
* Coordinating multidisciplinary team of **Program Development Frontier**Strip,as Secretary of Regional Integrated Programmes, with results supporting the Border Counties of the State of Rondônia and Bolivia and other Border Counties of the states that comprise the Brazilian Amazon, 2001-2003.
* coordination of teams of consultants and training for the implementation of these specific methodology to generate income by Professor Chlodomer de Moraes, University of Rondônia (UNITE) the National Programme for Employment and Income Generation (PRONAGER.)

The above also programs the PRONAGER is used with the goal of concrete actions in the training of local people to carry out productive activities.

program was the result of applying the methodology specific and a technical cooperation agreement between the Ministry, through the Department of Integrated Regional Programs and the United Nations Food and Agriculture Organization (FAO / UN), 2001-2003.

1. National Director, as Secretary of Regional Integrated Programmes / MI of Agricultural and Forest Plan of the State of Rondônia (PLANAFLORO) and Project Development Agroambiental of Mato Grosso (PRODEAGRO).
2. these projects resulted from a loan agreement between the World Bank, the Union and the States and technical cooperation agreement with the United Nations Program for Development (UNDP).

Coordinated National Team PRODEAGRO and PLANAFLORO, a multidisciplinary team that accompanied and evaluated the performance of activities of the components of the Project in Mato Grosso and Rondônia was conducted by the National Director of projects.

PRODEAGRO The Projects and had their PLANAFLORO based on the fact of having been designed as an integrated project, aiming at the solution of social, environmental and economic problems in the Amazon results. Justifying the project actions in components aimed at implementing socioeconomic infrastructure of local development actions through community initiative projects, research and development of agroforestry projects and components conservation of natural resources studies in aiming at sustainable use of protected areas in Rondônia, for the deployment of both conservation units of direct use as indirect.

these projects, and have resulted in the Ecological-Economic Zoning (ZEE) in Rondonia and Mato Grosso also as in the case of the latter State has deployed an Geo-referenced satellite, 2001-2003.Monitoring

1. Chief Cabinet Secretary Coordination of the Amazon, Dr. Mary Allegretti, the Ministry of the Environment 2003System.
2. Deputy Coordinator of the PPG-7 -. SCA/PPG7/BIRD, 2003-2004
3. Coordinator team formulation and implementation of the Project "Security without Borders", to work with the local population of the states of Rondônia, Acre and Amazonas, as Special Advisor to the Office of Minister of Social Security, 2004 to October, 2005teams:...
4. Selected for Consultant in Planning, Monitoring and Evaluation of Project components VIGISUS II, to work with the indigenous population, 2006-2009

3 **Experience in interacting with multidisciplinary**

Coordinating more important, multidisciplinary teams found themselves in PRODEAGRO and PLANAFLORO programs in PRONAGER, Program Development Track and Border Development Program of Integrated Mesoregions as part of my job at the Ministry of National Integration. A description of these programs is in **item 2, sub-items l, m, n, o,** this documentlevels:..

4 **Skills of communication and interaction at several**

Performance for the programs mentioned above, there was need for interaction and relationship with the teams at national, state and local level.

Moreover, there was a need to propose terms of reference for consultants and projects with multilateral organizations.

A selection of public officials took part in actions of my tenure as Secretary of Regional Integrated Programmes since the Ministry had no frame of career personnel. These managers were selected for basic training and also received salary supplement from the commissioned position.

Creating Forums Meso, as part of the methodology in Mesoregions demanded the team under my supervision, a process of interaction with local actors .

5building:.. **Skills for conflict management and consensus**

Implementation mainly of PRODEAGRO PLANAFLORO Projects and required much skill for resolving conflicts arising at the state and federal level

On the other hand, demanded the multidisciplinary team under my coordination, skills in conflict management both at the state and local level mainly related to obtaining consensus in discussions with representatives of civil society (NGO Forum).

To this end, meetings were held with the community and joints at the federal and state level and multilateral bodies, and may be cited approvals and decisions that resulted from discussions on **issues of SEZ the State of Rondônia and the Forest Code.**

Formation of community NGOs that emerged from the component of the Integrated Projects with Community Action (PAICs) required participation and consensus especially with Forums NGOs both Mato Grosso and Rondôniaof:..

6 **Experience and knowledge**

* **Diagnostics:**

How National Project Director, followed and participated in reviews of the work of the co-ordinators of the Ecological-Economic Zoning of the United Rondônia and Mato Grosso with support from IBRD / Federal Government as a strategic tool for regional planning, aiming at the development with socio-environmental sustainability, socio-economic and cultural.

Participation in socio-economic diagnosis of Acre and Extractive Reserves, ISPN / IBAMA and areas Maroons and their use of medicinal plantscoordination:.

* **Development of mechanisms for interagency**

Mechanisms of joints, I will mention my participation in the implementation of actions with the Management Committees of the Amazon Region (Ministry of Integration, Science and Technology, Environment and others), especially the participation of **CEAMAZ (Executive Committee of Joint Actions on Amazon) as an important mechanism for interagency coordination.**

coordinated the formulation of the project "Love Your City" and its implementation took place after the signing of Cooperation Agreement involving various ministries and programs of cultural, environmental education, sanitation etc.. For this, it became necessary not only to prepare the Terms of Reference as invitations to bidResearch:.

* **Scientific Research and Applied**

Participated as responsible for Socioeconomics Component Project "Biodiversity of the Cerrado" (BBC / ISPN / UNB / EMBRAPA) research with faculty in the Department of Botany and Forestry at UNB and EMBRAPA and the Botanical Gardens of Edinburgh / UK.

This research aimed to the conservation and management of the Cerrado biome, involving multidisciplinary team of social scientists and botanists and were aimed for the application of scientific knowledge in the area of botany to the needs of local and traditional communities. **Importantly, the area of this biome transition areas also involved with the Amazon rainforest, such as Mato Grosso.**

* **practice in the use of biodiversity and in the business of natural products chain:** Coordinated the component of sustainable use of biodiversity and I monitored the project "Small Grants Program" GEF / UNDP / ISPN facing the marketing of biodiversity products and designs PDA / SCA-MMAOrganization.

* **Community  :**

Support for the organization of networks such as the Network of NGOs of the Cerrado, working with the Amazon Working Group (GTA), especially with the Project on Gender and Environment, during my work with the Sub-coordinating body PPG7 .

* **Development of the private sector in biodiversity products:**

Experience with the Small Projects Program (PPP / ISPN) and follow some other PDA /MMAresidence:..

7 **Place of** Brasilia, Brazil2013.

**Mary Dayse Kinzo**

Brasília, February

**ROBERT K. WALKER, Ed.D.**

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**Education**

* Master’s degree in the Sociology of Development from Cornell University (minor in Latin American Studies).
* Doctorate in Educational Research and Evaluation from the University of Massachusetts.
* There was a strong focus on program evaluation in both programs. While my master’s thesis involved sociological research in rural Bolivia, my doctoral dissertation was based on multivariate analysis of an evaluation of bilingual education in Maine.

**Experience with Educational and Program Evaluation**

**Team leader of the following evaluations, in Brazil, the Dominican Republic and the United States:**

* Under contract with the Global Environmental Facility (GEF) and UNDP, evaluated the Brazilian Mangroves Project (2012-2013).
* Under contract with UNESCO, was responsible for doing an evaluability assessment in the area of Information and Communication Technology for Education (ICT4E) in Brazil, January-August, 2010.
* Under contract with UNDP, did a series of monitoring and evaluation reports on twelve projects of productive inclusion of youth in Brazil, for the Ministry of Social Development, and was responsible for the final project evaluation of phase 1 of the project, including a multiple case study, an evaluation of the 36 local projects and a program evaluation focusing on capacity development in monitoring and evaluation.
* Under contract with the Japan International Cooperation Agency (JICA), did a midterm evaluation of the International Course on Systems of Manufacturing Automationand an ex post evaluation of the Brazilian Amazon Forest Research Project Phase II, 2006-2007.
* Under contract with UNDP, did a study for the Evaluation and Mid-Term Review of the PDPI (Demonstration Projects of Indigenous Peoples), which is a part of the PPG7 (Pilot Programme for Conservation of the Tropical Rainforests of Brazil).
* Under contract with UNESCO, prepared the mid-term evaluation of the Diversity in the University Program of the Brazilian Ministry of Education and drafted a revised logframe for the second half of the project.
* As national expert under contract with UNODC, evaluated the “Drug Abuse and STD/HIV/AIDS Prevention Project,” AD/BRA/99/E02, together with Angelika Groterath, August-November, 2004.
* Under contract with UNESCO and the Brazilian Ministry of Health, evaluated the social control training component of the Reforsus Project, May-June, 2004.
* Did a study on the impact of UNICEF work on social policies - Brazil case, as a part of the assessment of compliance with the Convention on the Rights of the Child in three Latin American countries, January-February, 2000.
* Consultant, United Nations Development Programme / National Program for the Control of Sexually Transmitted Diseases and AIDS of the Brazilian Ministry of Health, 1992-94 and 1995-97. Developed the performance indicators for the World Bank project and for the program as a whole, as well as writing several projects. Author of a lengthy evaluation report on project performance in five states and six municipalities.
* Conducted an evaluation of the accomplishment of the community participation goals of the Ten Year Education Plan of the Dominican Republic, January-April, 1995, under contract with the World Bank. Was team leader and directly responsible for surveys and for the final report.
* Participated in a World Bank appraisal mission to prepare the educational materials component of the Second Northeast States Basic Education Project in Brazil, in June, 1992.
* In 1990-91, conducted an ex-post impact evaluation of UNDP Project BRA/70/550, "Human Resources Planning," producing a 200 page report (in English and Portuguese versions), including an historical overview, an assessment of the accomplishment of the project's twelve objectives during the period of project execution (1973-1980) and afterwards, a summary of the fifty technical documents produced by the project, and a synthesis of the proceedings of a seminar held to discuss the results of the evaluation and plans for the future.
* Evaluator of two bilingual education projects in Maine (French and Indian).

**Applied Social and Educational Research**

* Under contract with UNFPA, did the annual report for 2006 of the 2004-2007 President Friend of the Child and Adolescent Plan (PPACA) for the Special Secretariat for Human Rights of the Presidency of the Republic (SEDH) in Brazil, and drafted the new PPACA for 2008-2011.
* Drafted the Brazilian national report and 27 state reports on the results of the System of Evaluation of Elementary and Secondary Education (SAEB) 2003 (2004-2005).
* Did a study on the impact of UNICEF work on social policies - Brazil case, as a part of the assessment of compliance with the Convention on the Rights of the Child in three Latin American countries, January-February, 2000.
* Participated in a World Bank study of educational decentralization and community participation in the state of Minas Gerais (part of a multinational study also including Jamaica and India), October-December, 1994.
* Under an agreement between UNDP and the National Institute for Educational Research (INEP), of the Ministry of Education of Brazil, prepared research guidelines for case studies on educational experiments and innovations, and subsequently to write a project document for a UNDP project in this area.

**Presentations and Publications**

* *Impacting social problems:Writing and evaluating international development projects*. Brasilia, Escritório Bahá’í de Meio Ambiente e Desenvolvimento – EMAD, 2000. Published in Portuguese (by Editora Pedagógica Universitária – E.P.U.), under the title *Produzindo impacto social: Elaborando e avaliando projetos de desenvolvimento* (São Paulo, 2002).
* Distance learning in in-service and pre-service training courses as an instrument for strengthening citizenship rights. With Iradj Roberto Eghrari and Luis Gastón L. Marques. Presented at the 22nd World Conference of the International Council for Open and Distance Education, Rio de Janeiro, 3-6 September 2006.
* O tratamento do mérito na tradição filosófica ibérica e ibero-americana e possíveis implicações para avaliações de programas multi-étnicos (The treatment of merit in the Iberian philosophical tradition and possible implications for evaluations of multi-ethnic programs). Presented at the first annual meeting of the Associação Brasileira de Avaliação Educacional (ABAVE), Belo Horizonte, 11-12 May 2006.
* The new UNICEF standards for evaluation reports: their relevance for quality control, evaluation education and equity. Presented at the Educational Assessment Association of the Americas (EA3) Conference, Brasilia, 11-13 July 2005.
* Concurrent validation of a multiple-choice test for medical education in Brazil. With Honneur Evangelista Monção. Presented at the Educational Assessment Association of the Americas (EA3) Conference, Brasilia, 11-13 July 2005.
* Resolución de problemas basada en el análisis y actitudes estudiantiles responsables en dos aulas de física en el primer año de una escuela parroquial secundaria brasileña. With Ana Jusselma Rangel. Presented at the VII Epeco, Goiania, 9-11 June 2004.
* El marco lógico y los organismos multilaterales/internacionales y fundaciones. Circulated in the meeting of the Latin American Network for Monitoring, Evaluation and Systematization (Relac), February, 2004.
* Eficiência, eficácia, efetividade: (Falsos?) cognatos que atrapalham (Efficiency, efficacy, effectiveness: (False?) cognates that get in the way). Presented at the International Encounter of the Brazilian Comparative Education Society and the Catholic University of Brasilia, October 3-6, 2000.
* Avaliação e gestão no ensino superior e os organismos multilaterais e internacionais: o caso da educação médica (Evaluation and management in higher education and the multilateral and international organizations: the case of medical education). With Francisco de Assis Batista da Silva. IN Luiz Síveres, org., *Educação no Ensino Superior- Distintos Olhares.* Brasilia, Editora Universa, 2008.
* Matrículas e fluxo de estudantes no ensino médio no Brasil: tendências recentes e suas possíveis causas (Enrollment and student flow in secondary education in Brazil: recent trends and their possible causes). Research study commissioned by the Department of Secondary Education Policy of the Ministry of Education, 2006.
* Plano de avaliação para projetos de prevenção de AIDS em grupos específicos (Evaluation plan for AIDS prevention projects in specific groups). AIDS: Experiencias que funcionam, Year 1, no. 1, Sept.-Nov., 1992, pp. 12-18. Brazil, Ministry of Health.
* Ação Afirmativa pela Eqüidade e Não Violência. Presented at the Congresso Ibero-Americano sobre Violências nas Escolas, Brasilia, 28-29 April, 2004.
* Eficiência, eficácia, efetividade: (Falsos?) cognatos que atrapalham (Efficiency, efficacy, effectiveness: (False?) cognates that get in the way). Presented at the International Encounter of the Brazilian Comparative Education Society and the Catholic University of Brasilia, October 3-6, 2000.
* Community participation in education in the Dominican Republic: An evaluation of the accomplishment of the community participation goals of the Ten Year Education Plan. The World Bank, April, 1995.
* Informe final del componente “Participación Comunitaria”: Segunda fase del préstamo para el mejoramiento de la calidad de la educación inicial y básica en la República Dominicana (Final report of the “Community Participation” component: Second phase of the loan for improvement of the quality of initial and basic education in the Dominican Republic). With Amparo Chantada and Dionisio Martinez. World Bank, May, 1995.
* Estudo de caso aplicado às inovações educacionais: uma metodologia (The case study applied to educational innovations: a methodology). Brazil, Ministry of Education, Instituto Nacional de Estudos e Pesquisas Educacionais, Núcleo de Referências sobre Inovações e Experimentos Educacionais, 1992. Co-authors Ana Cristina Leonardos and Cândido Alberto Gomes. Organizers Leilah Bormann Zero, Luiza Massae Uema, Mírian R. N. Pereira and Rosana S. C. Clímaco.
* *Ex-post impact evaluation of Project BRA/70/550, "Planning of Human Resources."* United Nations Development Programme, Central Evaluation Office, February, 1991. Co-author Luiz Severino Macedo de Oliveira.
* A aprendizagem de conceitos no ensino de geografia (Concept learning in the teaching of geography). Brasília, Universidade de Brasília, 1985.
* Reprovação no primeiro grau, avanços progressivos e testagem de competências mínimas (Grade retention in elementary school, automatic promotion and minimum competency testing). Educação e Seleção, no. 10, Jul.-Dec., 1984, pp. 51-63.
* Reprovação na primeira série do primeiro grau no Espírito Santo (Grade retention in the first grade in the elementary schools of Espírito Santo). Brasília, Universidade de Brasília, 1983.
* Determinação da extensão de testes referenciados a critérios (Determining the length of criterion referenced tests). Educação e Seleção, no. 2, Dec., 1980, pp. 15-24.
* Comparação quase-experimental de dois modelos de rádio educativo (Quasi-experimental comparison of two models of educational radio). Revista de Tecnología Educativa (OAS) 3(4), 1977, pp. 495-510. Also published in Tecnologia Educacional 7(2), Jan.-Feb., 1978, pp. 15-21.
* Esquema de proposta de uma pesquisa avaliativa para o projeto de utilização de radiovisão (Draft proposal for evaluative research on the radiovision utilization project). Project: Utilization of the Technique of Radiovision. SEC/IRDEB. With Thereza Penna Firme and Jacobo Waiselfisz. Salvador, Bahia, December 23, 1977.
* *Cognitive versus confluent approaches to instruction via a weaker language*. Doctoral dissertation, The University of Massachusetts, 1973. Distributed by University Microfilms, Ann Arbor, Michigan.
* *Centrality, solidarity and development in a Bolivian peasant movement*. Masters thesis, Cornell University, Ithaca, New York, 1968.
* *Sociological Analysis of a Credit Union*. Bachelors thesis, The University of Michigan, 1966.

**Experience with educational and social development projects and programs**

* In the rural area near Brasilia where I live, my wife and I work with local people of all ages in education for community development.
* With the support of AVINA, I prepared the preliminary proposal of Ágere Cooperação em Advocacy, a Brasilia-based NGO of which I am a founding member, for funding by the European Commission for Non-State Actors and Local Authorities in Development, Programme Brazil, 2009.
* Under contract with the United Nations Programme on Drugs and Crime, prepared a project document for a project with the Brazilian Ministry of Justice in the area of trafficking in human beings and illegal migration.
* Wrote UNDP Project Documents for four projects submitted by the Brazilian Ministry of Health, in the fields of AIDS, AIDS and sexually transmitted diseases in gold prospecting areas, institutional strengthening for the Northeast Project of Basic Health Actions (a World Bank project), and informatics and hospital facilities (Prosaúde).
* Prepared detailed terms of reference for the Health Promotion component of a proposed World Bank project, "Quality Assurance and Health Promotion."
* Prepared the Community Participation Component of the Second Primary Education Development Project (World Bank / Government of the Dominican Republic), based on the "Evaluation of the Accomplishment of the Community Participation Goals of the Ten Year Education Plan."
* Served as acting head of the Prevention Unit of the National Program for the Control of Sexually Transmitted Diseases and AIDS of the Brazilian Ministry of Health from September, 1993 to February, 1994. Visited AIDS prevention and social marketing programs in Thailand, Malaysia, Indonesia and Mexico. Participated in the World Congress on AIDS in Yokahama, Japan.
* Prepared briefs on fifty Unicef-Brazil project reports and evaluations, 2003-2004.
* Prepared a briefing on UNDP projects in Brazil for the visit of the Administrator, 2000.
* Assisted the United Nations Resident Coordinator in preparation of the Annual Reports of the Resident Coordinator in Brazil in 1997 and 1998.
* Assisted the United Nations Resident Coordinator in documentation and description of the performance of the United Nations system in Brazil from 1980 to 1995, in preparation for a mission to evaluate impacts on the operational activities of the United Nations system during that same period.
* At the request of the outgoing UNESCO Representative, drafted a Country Profile for Brazil to be placed at the disposal of the new Representative. Was responsible for suggestions for future cooperation in the areas of education; science; culture; and communication, information and informatics.
* Wrote the Brazilian component of the project for fighting child domestic labor for the International Program of Eradication of Child Labor (IPEC), of the International Labor Organization, May-August, 2000. The project was approved for funding by the U.S. Department of Labor.
* Recruited in April of 1988 by the United Nations Development Programme as Senior Programme Assistant in Brazil, I was assigned the task of preparing and monitoring a series of projects to assist the Brazilian Government to plan development strategies for the nineties and beyond. I prepared numerous projects in the area of public policy for the Ministries of Planning, Finance and External Relations, as well as the National Bank for Economic and Social Development (BNDES), the largest national development bank in the world. As a result, a greater awareness of world trends in key industries and in international relations, resulting from travel, studies, seminars and data bases organized under these projects, has helped orient top level policy decisions. Recognizing that the first direct election of a Brazilian president in three decades and the decentralization of government authority mandated by the new Constitution made it imperative for UNDP to broaden its target population, I wrote the “Programme Development Facility.” Within this project, a series of seminars on key development issues for the nineties was held. Representatives of the principal political parties, the private sector and the government met to discuss papers presented by Brazilian and international experts. Due in part to these efforts, a consensus was created among the Brazilian leadership that more dynamic national insertion into the world economy was of vital importance, at the same time as measures were taken to stop inflation and reduce social disparities. Under two projects written by me, the Planning Ministry (SEPLAN) took steps to establish a system of performance evaluation within the Brazilian Government. Under one of these projects, the Government for the first time established a system for monitoring the application of financial resources from the international development banks.Another project, funded out of Special Programme Resources, was in response to severe flooding in the state of Alagoas. In addition to efforts toward community organization and the diffusion of innovative technologies for low-cost housing and sanitation, the project enlisted the cooperation of the Organization of American States to prepare proposals for major investments in integrated regional development and flood prevention, for submission to national and international development banks.
* Acting principal of the School of the Nations1981. Science and English teacher, 1981-83. Voluntary teacher of moral development in the sixth through eighth grades of the Nova Betânia school, of the Educational Foundation of the Federal District, 1997.
* Worked as multicultural curriculum developer at a project in the Houston, Texas public schools. As a doctoral candidate at the University of Massachusetts, worked as evaluator of two projects in the field of compensatory education, and helped develop the ANISA Model for the release of human potential.

## Training courses in project writing and evaluation

* I developed and teach courses on “Impacting Social Problems: Writing and Evaluating International Development Projects,” based on a book with that same title written by me and published in English and Portuguese. Have taught courses for the Japan International Cooperation Agency (JICA), Caixa Seguros/John Snow do Brasil, Instituto Avaliação, Fundação Banco do Brasil and the Fundação Nacional de Saúde (National Health Foundation), in Brasilia.
* Taught a one month course on monitoring and evaluation for personnel of the Japan International Cooperation Agency (JICA), Brasilia, April 2007.

# University teaching, research and consultancies

* Currently professor of Translation Studies, Universidade de Brasília. I have taught in graduate and undergraduate programs at the Universidade Católica de Brasília, Centro de Educação Superior de Brasilia, Pontifícia Universidade Católica do Rio Grande do Sul, and at the federal universities of Rio Grande do Sul, Rio Grande do Norte and Espírito Santo, as well as Texas Southern University. Taught classes in educational and social research and evaluation, planning, economics, systems analysis, statistics, comparative education, and institutions and culture, as well as serving as thesis advisor. Over the years, my research interests have included international development evaluation, institutional evaluation, distance learning, excellence and equity in education, the evaluation of critical thinking, the use of educational testing to increase systematic learning and avoid school failure, experimental comparison of different models of educational radio in development, bilingual education, compensatory education, and peasant movements and development.
* Consultant, State University of Mato Grosso do Sul, assisting in institutional evaluation and strategic planning, April, 2001 to March, 2002.
* Taught short courses in "Social Development and the Human Dimension" and "The Practice of Values Education" at the Federal University of Sergipe, March, 2000.

**Multicultural/bilingual and compensatory education**

Worked as multicultural curriculum developer at a project in the Houston, Texas public schools, and as educational evaluator of two bilingual projects in Maine (French and Indian). As a doctoral candidate at the University of Massachusetts, worked as evaluator of two projects in the field of compensatory education, and helped develop the ANISA Model for the release of human potential.**Languages**

* Fluent in English, Portuguese and Spanish. Good knowledge of German and reading knowledge of French.

**References**

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Curriculum Vitae

**VAG-LAN GOMES BORGES**, 44 years old, Brazilian, is a doctoral student of economic geography from Utrecht University, The Netherlands. I hold a Bachelor Degree in “Political Science” from University of Brasilia, Master’s Degree in “Economic Development” from International University of Andalusia, Spain, and a Certificate in Territorial Planning and Development. I have been an associate-professor of the University of Tocantins with large experience as a lecturer of bachelor and postgraduate level, as well as, I have worked as a consultant for international organizations such as World Bank, KfW, GEF, UNDP, FAO, WWF, and Brazilian government agencies, to providing consulting services on sustainable forest resources management, energy & climate, ecosystems services, agriculture & food, local and regional development, urbanization & cities, and economics & finance of sustainable development. Previously I worked as an expert on participatory processes for land reform, sustainable rural management and conflict resolution for the Ministry of Rural Development of Brazil In the first semester of 2011 I stayed as a visiting-professor at the Swedish University of Agricultural Sciences (SLU) to support the structuring of study and academic cooperation programme on tropical forestry.

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## ACADEMIC EDUCATION

2009  Ph.D. Candidate in Economic Geography – **Urban and Regional Research Centre Utrecht – Utrecht University.**

2007 Postgraduate Specialization in Territorial Planning and Development – **Federal University of Santa Catarina** - Brazil

2003 Master’s Degree in “Economic Development in Latin America” – **International University of Andalusia**, Spain

1996 Bachelor in Political Science – **University of Brasilia**

## TRAINING

2012 Volkswagen Foundation Winter School on Limits to Growth Revisited. 27-30 November 2012, Visselhövede, Lower Saxony, Germany.

2011 Participatory forest management as practice and performance. Summer School, Wageningen School of Social Sciences, Wageningen University, July 11-15, 2011, The Netherlands.

2011 PhD Summer School 2011 on Sustainable Energy Production : 20-24 June 2011, University of Copenhagen, Faculty of Life Sciences, Denmark.

2011 Joensuu Forestry Networking Week on Forest Bioenergy. Joensuu 27 May-1 June 2011. University of Eastern Finland-METLA-EFI, Joensuu, Finland.

2011 5th Jena Summer Academy on ”Innovation and Uncertainty”, from the 24th of July until the 7th of August 2011. Friedrich Schiller Jena University and Max-Planck Institute of Evolutionary Economics.

2011 Summer School on “Spatial Econometrics”. Lecturer: Prof. Serge Rey, Department of Urban Planning, Arizona State University. Wageningen University, 27-31 June 2011, The Netherlands.

2011 Spring School on “Micro Approaches to Innovation and Innovation Networks”.DIMETIC and University of Strasbourg, 11-21 April 2011, France.

2008 Internship as visiting-scholar – bio-energy trends in UK and EU, Scandinavia, Germany, and USA, green technology convergence, clusters, networks, and innovation, land-based industry, rural-urban relational spaces and clustering processes in the bio-energy sector of UK and Brazil. **Centre for Advanced Studies of the Cardiff School of City and Regional Planning of the Cardiff University**.

2008 Summer School - Modelling, systems and dynamics (regional innovation systems, clusters, and dynamics, the economy as a complex evolving system: network theory; evolutionary models and computational tools) – 40h - 6-17 October - **United Nations University UNU-MERIT**, Maastricht, The Netherlands.

1. Summer School – “Sustainability in Forestry and the Wood Industry” – 100h – **Technical University of Munich** – Germany – 24--6 October 2006.
2. Summer School – “Political and Social Dimensions of Forest Certification” – 40h –**FreiburgUniversity** – German – 17-21 September 2001.

## INTERNATIONAL JOURNAL PEER-REVIEW

1. Peer-reviewer of the **International Journal of Biodiversity and Conservation**. Website: <http://www.academicjournals.org/ijbc/>. Editorial Assistant: Judith Atenaga.
2. Peer-reviewer of the journal **European Planning Studies** (EPS). Website: <http://www.tandf.co.uk/journals/ceps> . Guest Editors: Bernhard Truffer and Lars Coenen.

## INTERNATIONAL CONFERENCES

2008 Conference on Regional Economies in a Globalising World: Enhancing Intellectual Capacity and Innovation. Held on 21 November, Glamorgan Building, Cardiff University. Chair: Professor Kevin Morgan.

2007 Financing Forest Conservation: Conference on Payment for Environmental Services in the Tropics, Yale Chapter of the International Society of Tropical Foresters (<http://www.yale.edu/istf/conference_2007.html>), held at Yale School of Forestry and Environmental Studies, New Haven, CT, in 2-3 March 2007.

2007 World Bank Global Forum Building Science, Technology, and Innovation Capacity for Sustainable Growth and Poverty Reduction, Washington, DC, held in 11-13 February 2007. (<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSTIGLOFOR/0,,menuPK:3156763~pagePK:64168427~piPK:64168435~theSitePK:3156699,00.html>?);

2006 Conference Forestxchange – New approaches of knowledge management applied in forestry, Freiburg, Germany, held in 25-27 October 2006 (<http://www.forestxchange.org>).

2006 Conference Make Markets Work for Climate (<http://www.makemarketswork.com>), Amsterdam, The Netherlands, held in 16-17 October 2006;

**PROFESSIONAL EXPERIENCE**

March 2013 Senior Consultant of UNDP and ABC(Brazilian Agency of Cooperation) to evaluate south-south and triangular cooperation policy-making and implementation during course training seminar in Brasilia-DF, Brazil.

Nov12-Mar13 Senior Consultant of GEF (Global Environmental Facility) to prepare comprehensive mid-term evaluation and monitoring of the Project Mangroves of Brazil.

Since 2005 Director of Forest Life – consulting services in bio-energy, forest management, eco-labelling, eco-innovation, green markets, carbon trading markets, and environmental management. See more at <http://www.forestlife.com.br>.

2011 Visiting-Professor at the Swedish University of Agricultural University (SLU), Alnarp, on tropical forest management and economics, under the Erasmus Mundus Mobility Scholarship.

2011 Visiting-Scholar at the Jena Universität Friedrich Schiller on “technology innovation and bioenergy production in Brazil”. Jena, Gernany.

2008 Visiting-Researcher of the Centre for Advanced Studies of the City Planning Institute of the Cardiff University – Cardiff – Wales – UK.

2008 Project Manager. Brazilian Ministry for Rural Development. Programme on Sustainable Rural Development. Url: http://www.territoriosdacidadania.gov.br.

2005/6 CEO and Project Manager. Funiversa (Catholic University Foundation).Url: <http://www.funiversa.org.br>

2005/8 Project Manager. University of Tocantins.Project on Technology Innovation and Transfer for Sustainable Rural Development.Url: <http://www.unitins.br/ates>

2006 Consultant of Provarzea for project evaluation in the Amazon River Floodplain on sustainable and environmental management of natural resources.

2005 -Present Lecturer of Unitins – University of Tocantins.Post-graduation courses.[www.unitins.br](http://www.unitins.br)

2005 Coordinator of the postgraduate program of the **Catholic Faculty of Tocantins**.

2004/1 - Director-President of the Infor, International Institute for Forests and Environment, Palmas, Tocantins, Brazil.

1. Associate Professor of entrepreneurship and competitiveness, project formulation, project management, fund-raise, and lobby and parliamentary relationship of the **Catholic University of Brasilia**.

2003/3 Consultant of the **GEF (Global Environmental Facility)** and **UNDP** to assess a GEF Program of biodiversity conservation in the Amazon.

2002/8-12 Senior-Consultant of the **IATEC (Institute Araguaia-Tocantins of Studies of the Cerrados**), Palmas, TO. Structuring of Program on ecological conservation and ethnobotany.

2002/5-8 Senior-Consultant of the **University Foundation of Brasilia**. Formulation of the initial framework of the “Technology Transfer Program”.

2001/10/2002/8 Consultant of the **Ministry of Planning, Budget and Public Management** for technical support on environmental and forestry issues of the Amazonian region of Brazil.

2000/8/2002/1 Adjunct-Professor of “Contemporary Economy” and “International Political Economy at **IESB (Institute for Graduate Studies of Brasilia)**.

2001/1-7 **WWF/Brazil**. Division of Trade and Environment.Consultant for the formulation of Data Bank for agriculture products of the biome Cerrado.

1999/9-12 **UNDP/PPG-7/Ministry of Environment - Brazil**. Consultant for the formulation and Project Design for institutional strengthening and trade in non-timber forest products concerned to rural sustainable development in the Amazon.

1999/3/1999/9 **LATEQ/University of Brasilia**. Certification of Timber and Non-Timber Forest Products and Market Behavior. Function: Consultant for the analysis of the international tropical timber market; Diagnosis international organizations, regimes, and systems for certification of forest products; and economic and market impact assessment of certification of timber and non-timber forest products from the Amazon.

1999/3 **UnB/CIORD/SAE** – Post-Graduation Course: “Gestão Ambiental e Ordenamento Territorial” (Environmental Management and Land Use Planning). Discipline: “Biodiversity and Biotechnology in the Amazon”. Function: Professor.

1998/8-10 **BNDES/Consórcio Brasiliana**. Technical subsidies for the formulation of the Pluri-annual Plan and “Avança, Brasil” – A Federal Government’s Program.Identification of Opportunities for Private and/or Public Investments/ Madeira-Amazonas and Arco-Norte Development and Integration Axes. Function: Consultant for the diagnosis of potentialities for sustainable economic development based on commercialization of non-timber forest products; formulation of policy measures to foster, promote and support trade in non-timber forest products.

1997/8/1998/10 **UNDP/IBAMA/UnB Project** (An Alternative Technology for Rubber Production in the Amazon – Tecbor). Function: Researcher/Project Co-Manager for Economic Studies and Socio-economic analysis for technical implementation; institutional and economic analysis of the Project environment of implementation; top-down and bottom-up evaluation.

1996/91999/9 **ITTO/FUNATURA/IBAMA/UnB**. Non-Wood Forest Products Project: Processing, Collection and Trade. Function: Researcher/Manager for Economic and Environmental Studies and Socio-economic analysis on non-timber forest products of the Amazon; assessment of available technologies; and institutional environment of the non-timber extraction economy in the Amazon.

###### ACADEMIC EXPERIENCE

1996/2/7 **Dept. of International Relations**. Function: Monitor of the course “International Economic Relations”

1996/1-3 **Dept. of Political Science** – University of Brasilia. Research Project: Agrarian Politics in Brazil – 1985 – 1995. Function: Trainee

1995/8/12 **Dept. of History** – University of Brasilia. Function: Monitor of the course “General Social and Political History”

1994/3/7 **Dept. of Political Science** – University of Brasilia – Function: Monitor of the course “Contemporary Political Theory”

1993/8/2004/3 **Center for Energy Planning** – CEAM – University of Brasilia. Project: Sustainable Energy Policy for the Amazon/CNPq. Function: Assistant-Researcher

### REFERENCES

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### LANGUAGES

English, Portuguese, and Spanish: listen, speak, read, and write fluently

German: listen, speak, read, and write fairly

French: listen and speak fairly

##### PUBLICATIONS

Borges, Vag-Lan, Ferreira, Mônica Sousa, Félix, Gustavo. The new economics of Babassu palm forests in Brazil. Tropical Forest Update 19(4), 2010, ITTO, Japan.

Borges, Vag-Lan. Redefinindo as estratégias de gestão florestal na Amazônia. Jirau 4 (16), Manaus, Amazonas.

Borges, Vag-Lan. “Homma’s Model and the non-timber forest economy”. Article accepted to be presented during and publish in the Proceedings of the **IUFRO World Congress 2005**, to be held in August in Brisbane, Australia (www.iufro2005.com).

Borges, Vag-Lan. “The natural rubber economy of the Brazilian Amazon: trade and forest conservation”. Article accepted to be presented as a poster at the **Tropentag 2004**, held in October in Berlin, Germany.

Borges, Vag-Lan.“Forest products, markets, and sustainable forest management in the Amazonia”. Article accepted to be presented orally at the**Conference on the Economics of Sustainable Forest Management**, to be held in May in Toronto, Canada.

Borges, Vag-Lan.“Intertemporal Sustainability for the economic viability of Agroforestry Systems in the Amazonia”. Abstract of article accepted to be presented as a poster in the **1º World Congress of Agroforestry**, held in July of 2004, in Orlando (Florida, EUA).

Borges, Vag-Lan.“Homma Model and non-timber extraction in the Amazon”.**World Forestry Congress 2003 Proceedings.**Quebec, Canada, 2003.

Borges, Vag-Lan. “Market systems for non-timber forest products in the Amazon”. ETFRN Newsletter. Verweij, Pita (Ed.). **Innovative Financial Mechanisms for Conservation & Sustainable Forest Management**.The Netherlands.

Borges, Vag-Lan.“Non-timber economy in the Amazon and markets”.**Non-Wood News Bulletin No. 8**, FAO, 2001.

Borges, Vag-Lan. “Por um novo ciclo da borracha na Amazônia” (For a new rubber cycle in the Amazonia). **Gazeta Mercantil**, 18.04.2001.

Borges, Vag-Lan.“Sustaining non-timber extraction”.**Tropical Forest Update** 10(3), ITTO, Japan, 2000.

Borges, Vag-Lan.“Economy of non-timber forest products in the Amazonia and Markets System**”. Non-Wood News Bulletin (FAO), No 7**, 2000.

Borges, Vag-Lan “A bicicleta e o meio ambiente” (bicycle and environment). **Gazeta Mercantil**, 28.2.2000.

**Appendix 10**

**Evaluation Table[[8]](#endnote-1)**

|  |  |  |
| --- | --- | --- |
| **Item** | **Grade** | **Comments** |
| **Monitoring and Evaluation** |  |  |
| General Monitoring and Evaluation | **U** | (Unsatisfactory) There are PowerPoint presentations in national meetings and steering committee meetings, but there is a permanent lack of M & E systems for learning and control. |
| Initial M&E Design | **U** | (Unsatisfactory) changes in METT between applications (instrument decay) greatly hamper the longitudinal comparisons, and are not properly controlled. |
| M&E Plan implementation | **U** | (Unsatisfactory) Lacks leveraging of IT in M & A in an efficient, transparent and easy manner. Comparisons baseline (2006-2007) / comparison line (2012) were not correctly computed and utilized for adaptive management. An important recommendation of the Project Implementation Report (PIR) did not engender debate or action. |
| **Implementation by the Implementing and Executing Agencies** |  |  |
| Overall quality of implementation and execution of the Project | **MS** | (Moderately satisfactory) Given that the executing agency began about the same time the project it can be considered natural that the implementing agency has taken a very proactive role in the beginning. This situation only becomes problematic if spread out in time. |
| Implementation by the Implementing Agency | **S** | (Satisfactory) As always, UNDP was efficient in the implementation of the Project, the only reported problem in this case was due to the pressure of responsibilities for Rio +20 and the issue of routine backstopping that would have failed at the time. |

1. Wenger, E.; White, N.; e Smith, J. D. (2009). Digital Habitats: Stewarding Technology for Communities. Portland, Oregon, CPsquare. [↑](#footnote-ref-1)
2. Shown as a % of the maximum possible score for each management effectiveness category (100% = 90 pts.), with corresponding ranges: Poor: < 25% (0 – 22.5 points); Fair: 25–50% (23 - 45 pts.); Good: 51–75% (46-67.5 pts.); Excellent: 76–100% (68-90 pts.). [↑](#footnote-ref-2)
3. In 2012 the maximum possible score for each management effectiveness category for this time was updated to a total of 102 points (100%). The corresponding ranges are: Poor: < 25% (0 – 25.5 pts); Fair: 25–50% (26 - 51 pts); Good: 51–75% (52-76.5 pts); Excellent: 76–100% (77-102 pts). [↑](#footnote-ref-3)
4. 2007: These categories are aggregates of the following METT questions: **Context**: 1) Legal status; 2) Protected area regulations; 3) Law enforcement; 6) Protected area boundary demarcation; 9) Resource invent; **Planning**: 4) Protected area objectives; 5) Protected area design; 7) Management plan; 8) Regular work plan; 30) Monitoring and evaluation; **Inputs**: 10) Research; 12) Staff numbers; 14) Staff training; 15) Current budget; 16) Security of budget; **Processes**: 11) Resource management; 13) Personnel management; 17) Management of budget; 18) Equipment; 19) Maintenance of equipment; 20) Education and awareness programme; 21) State and commercial neighbours; 22) Indigenous people; 23) Local communities; 25) Commercial tourism; **Outputs**: 24) Visitor facilities; 26) Fees; and **Outcomes**: 27) Condition assessment; 28) Access assessment; 29) Economic benefit assessment. [↑](#footnote-ref-4)
5. 2012: The categories are aggregates of the following METT questions:**Context**: 1) Legal status; 2) Protected area regulations; 3) Law enforcement; 6) Protected area boundary demarcation; 9) Resource invent; **Planning**: 4) Protected area objectives; 5) Protected area design; 7) Management plan; 8) Regular work plan; **Inputs**: 10) Research; 11) Resource management, 13) Personnel management; 15) Current budget; 16) Security of budget; 18) Equipment; 22) Indigenous people; **Processes**: 12) Staff numbers; 14) Staff training; 17) Management of budget; 19) Maintenance of equipment; 20) Education and awareness programme; 21) State and commercial neighbours; 23) Local communities; 26) Fees;28) Access assessment; **Outputs**: 24) Visitor facilities; 25) Commercial tourism; 29) Economic benefit assessment; and **Outcomes**: 27) Condition assessment; 30) Monitoring and evaluation. [↑](#footnote-ref-5)
6. [↑](#footnote-ref-6)
7. www.unevaluation.org/unegcodeofconduct [↑](#footnote-ref-7)
8. In the Table of Assessment, we use the abbreviations specified in the document, Guidance for Evaluation UNDP GEF-Financed Projects: Version for External Evaluators final draft March 17, 2011. Note that U and MU initials have two meanings: Monitoring and Evaluation, Enforcement Agencies for Implementation and Enforcement, and General Paper Catalytic Project Results, mean Moderately Unsatisfactory Unsatisfactory and (Moderately Unsatisfactory and Poor), for Sustainability, Moderately unlikely and unlikely (Moderately Likely and Unlikely) (see pages 18 and 20-21). [↑](#endnote-ref-1)