MINISTRY OF ENVIRONMENT AND NATURAL RESOURCES
INTER-AMERICAN DEVELOPMENT BANK
GLOBAL ENVIRONMENT FACILITY

TERMINAL EVALUATION

"IMPROVEMENT OF MANAGEMENT EFFECTIVENESS OF THE MAYA BIOSPHERE RESERVE" PROJECT

GEFSEC ID: 2687
GEF Agency ID: GU-X1001
IDB No.: GRT/FM-11375-GU

GEF Focal Area: Biodiversity

(OP2) Avoid deforestation and illegal trespassing, and freshwater ecosystems sustainable development

Executing Agency: **Ministry of Environment and Natural Resources (MARN), with technical support of the National Council on Protected Areas (CONAP)**

Evaluator:
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Terminal Evaluation period: 02-24-2017 to 06-24-2017

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GUATEMALA

"IMPROVEMENT OF MANAGEMENT EFFECTIVENESS OF THE MAYA BIOSPHERE RESERVE" PROJECT

TERMINAL EVALUATION

I N D E X

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LIST OF ACRONYMS

AOP	Annual Operational Plan
BC	Biological Corridors
BZ	Buffer Zone
C	Clear
CCAD	Central American Commission for Environment and Development
CDB	Biological Diversity Convention
CEMEC	CONAP Monitoring and Evaluation Center
CF	Carbon Footprint
CIAN	High-Level Inter-Institutional Committee
CIDSP	Inter-Institutional Commission for the Sustainable Development of Petén
COCODE	Community Development Committees
CONAP	National Council on Protected Areas
CZ	Core Zone
EA	Executing Agency
EA	Executing Agency
EU	Executing Unit
GEF	Global Environment Facility
GHG	Greenhouse Gas
GoGu	Government of Guatemala
GTZ	German Agency for Technical Cooperation
HS	Highly Satisfactory
HPR	Half-Yearly Progress Report
HU	Highly Unsatisfactory
IA	Implementing Agency
IDAEH	Institute for Anthropology and History
IDB/Bank	Inter-American Development Bank
INE/RND	Environment, Rural Development and Disaster Risk Management Division
INGUAT	Guatemalan Tourism Institute
L	Likely
LL	Lesson learned or finding
M&E	Monitoring and Evaluation
M&E	Monitoring and Evaluation
MAGA	Ministry of Agriculture, Livestock and Food
MARN	Ministry of Environment and Natural Resources
MBR	Maya Biosphere Reserve
MEM	Ministry of Energy and Mining
MICUDE	Ministry of Culture and Sports
ML	Moderately Likely
MS	Moderately Satisfactory
MTE	Mid-Term Evaluation
MU	Moderately Unsatisfactory/Moderately Unlikely
MUZ	Multiple-Use Zone
N.a.	It does not apply
NC	Not Clear
NM	Not Mentioned
NP	National Park
OP	Operations Plan
PA	Protected Area
PD	Project Document

PDPCRBM	Peten Development Program for the Conservation of the Maya Biosphere Reserve
PIF	Project Identification Form
PMEMRBM	Improvement of Management Effectiveness of the Maya Biosphere Reserve Project
PMR	Project Monitoring Report
PNLT	Laguna del Tigre National Park
PNSL	Sierra Lacandon National Park
PP	Procurement Plans
PROJECT	Improvement of Management Effectiveness of the Maya Biosphere Reserve Project
S	Satisfactory
SCEP	Secretariat for Execution Coordination of the Presidency
SIGAP	Guatemalan Protected Area System
SNNCM	National Standardization, Certification and Metrology System
SUZ	Special-Use Zone
TC	Technical Cooperation
TE	Terminal Evaluation
ToR	Terms of Reference
U	Unlikely
U	Unsatisfactory
UNDP	United Nations Development Program
VC	Very Clear
WCS	Wildlife Conservation Society

1 EXECUTIVE SUMMARY

1.1 Key evaluation approach and methodology aspects

The development objective of the Project for the Improvement of Management Effectiveness of the Maya Biosphere Reserve (PMEMRBM) is the conservation and sustainable use of biodiversity in the Maya Biosphere Reserve, with an emphasis on the areas of high biological importance, by strengthening institutional capacity and through the effective participation of different stakeholders so as to optimize its management. The global objective is to contribute to the ecological integrity and connectivity of the Selva Maya, a region which is highly significant for the biodiversity of Mesoamerica. The specific objectives are: (i) to strengthen the institutional arrangements and the capacity for effective management of biodiversity in the MBR; (ii) to foster the conservation and sustainable use of biodiversity in the MBR; (iii) to support the formulation and implementation of policies, standards, and other instruments for managing the MBR; and (iv) to contribute to the generation and use of information for the adaptive management of the MBR (IDB 2005).

The objective of the consulting assignment was to make an analysis of the project execution process, the outputs produced and the fulfillment of the project objectives as set forth in the documents approved by GEF[1] (IDB-CSD/RND 2017).

The methodology was designed for it to be as inclusive as possible and the evaluation approach prioritized the participation of different stakeholders which have been part of the Project. The following data gathering and analysis methods were used in the evaluation: i) document review; ii) partly-structured interviews (face-to-face or via Skype), iii) questionnaires, and iv) presentation of preliminary results.

The evaluation has five dimensions: relevance, effectiveness, efficiency, impact, and sustainability. A description of the ratings used is provided on Table 4.

1.2 Project background and description

The Ministry of Environment and Natural Resources (MARN) of Guatemala implemented the Peten Development Program for the Conservation of the Maya Biosphere Reserve (PDPCRBM), which promoted the integrated management of natural and cultural resources in the Department of Peten. The Program was financed by the Inter-American Development Bank (IDB) under Loan Agreement 1820/OC-GU.

This Program was complemented by the Project for the Improvement of Management Effectiveness of the Maya Biosphere Reserve through a donation in the amount of USD 3,660,000.00 made by the Global Environment Facility (GEF) as part of the allowance received by Guatemala under the Biological Diversity Convention (GRT/FM-11375-GU). The Project was approved on December 3, 2008 and completed in December of 2016 (after 8 years of execution).

The estimated project costs by component are provided on Table 1.

[1] GEF CEO Endorsement

Table 1: **Estimated Project Cost by Component (in thousand USD)**

COMPONENTS	GEF GRANT	IDB LOAN*	TOTAL USD
1: Strengthening the institutional arrangements and the capacity for effective management of biodiversity in the MBR	1,060	1,540	2,600
2: Fostering the conservation and sustainable use of biodiversity in the MBR	400	7,000	7,400
3: Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR	920	1,000	1,920
4: Generation and use of information for the adaptive management of the MBR	950	0	950
Other costs:			
Administration and supervision	*300*	*1,300*	*1,600*
Financial		*100*	*100*
Audits	*30*	--	*30*
TOTAL	***3,660***	***10,940***	***14,600***

NB: ***** Project cofinancing.

Source: ***IDB 2008.***

1.3 Summarized evaluation ratings

The purpose of a Terminal Evaluation (TE) is to provide an independent in-depth evaluation of the achievements made through the implementation of a project. The TE follows the guidelines, rules, and proceedings established by IDB and GEF in the Guidelines for GEF Agencies conducting Terminal Evaluations, GEF Evaluation Office Ethical Guidelines.

Below are the ratings for each dimension analyzed, as required in the ToR (the ratings key is provided on Table 4)

Table 2 **Summarized Project Evaluation Ratings**

EVALUATION OF OUTCOMES	RATING
Relevance	Moderately Unsatisfactory (MU)
Effectiveness	Moderately Unsatisfactory (MU)
Efficiency	Moderately Unsatisfactory (MU)
Impact	Moderately Unsatisfactory (MU)
Sustainability	Moderately Unlikely (MU)

NB: The higher the number, the better the rating.

Source: *GEF 2008 form with 2017 evaluation results.*

It should be noted that the Project was highly negatively affected by the following circumstances:

- *High staff turnover: six ministers served during four different administrations, with the consequent change of vice-ministers and even of technical staff, which greatly affected the Project as the incoming staff had to get familiar with the Project, the new authorities set new guidelines and priorities, and, in general, the Project got delayed and lost continuity. On top of this, a change of authorities took place in Peten, including governor, mayors, and representatives, among others.*

- *A transitional government took over for three months due to the removal of the President of the Republic, Otto Perez Molina; this situation resulted not only in staff turnover, but also in political instability, negatively affecting the Project.*
- *In 2014, a new procurement law was passed requiring that positions at the EU be filled with public servants and, thus, their salaries were reduced and some of the new staff members did not have the expertise required to manage IDB projects.*
- *Death of GEF Coordinator Fernando Miyares, who held a strategic position and had the political influence necessary to make the Project progress. After his death, the position remained vacant – no one was ever hired to replace him.*

1.4 Main findings

1.4.1 Analysis of the design and execution

The Results Matrix had a vertical logic: the indicators and activities were consistent with the outputs, the outputs with the components, and the components with the objective. The objectives, components, outputs, activities, and indicators were clear. In addition, both components and outputs were consistent with and related to the development issues identified. The Project Document (PD) properly set out the monitoring and evaluation instruments to be used. However, some inconsistencies resulting from excessive optimism about the following aspects have been identified in its design:

- *Logical Framework: the objectives and targets were too ambitious[2] - in terms of budget, time frames and institutional capacity - and departed from reality. In addition, there was no consistency between the design and the execution of the Project.*
- *Communication: the project execution was supposed to be coupled with an integrated communications plan - which did not get implemented.*
- Inter-institutional coordination: assumptions were that there would be proper coordination, especially among the institutions which are part of CIDSP. CONAP lost interest because the resource administrator was MARN.
- *Turnaround and approval times: in practice, there was great bureaucracy within MARN and little interest in getting things approved fast.*
- *Counterpart staff: very high turnover.*
- *Arrangements: the arrangements contemplated in the Project Document were not executed, or were executed but not performed.*
- *Political influence: pressure was exerted towards the hiring of public servants.*

The Project's Risk Matrix was updated in the PMR, but the risks identified in the Project Document were overlooked.

1.4.2 Relevance

The design of this Project complied with the regulations and policies of the beneficiary country, as well as those of the Implementing Agency (IA) and GEF, namely:

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[2] As pointed out in the Mid-Term Report: *"However, when we go down to the purpose level, the indicators (mostly related to outcomes) reflected a more concrete but ambitious, ambiguous and not necessarily feasible scope, especially as regards the detail of the specific activities that should generate those outcomes.". "These goals where unrealistic and unlikely to be achieved; in fact, they were supposedly reformulated in 2010, as evidenced by the Half-Yearly Progress Reports (HPRs). The second HPR of 2010 introduces the indicators of the "results framework", instead of those of the logical framework."* (OTSCORP S.A. 2014).

- The National Biodiversity Conservation and Sustainable Use Strategy, with the National Policy and the Development Plans, and the CONAP Institutional Strategic Plan.
- It was directly aligned with the 2004-2007 IDB Country Strategy for Guatemala, the main objective of which was to reduce poverty.
- It was formulated under the GEF "Biodiversity" Focal Area and the Operational Program #3 "Forest Ecosystems". Likewise, the Project was consistent with the GEF BD-1 strategic objective "Improve Sustainability of Protected Area Systems".

1.4.3 Effectiveness

The Project failed to achieve the targets in about 50% of the output indicators and had major problems restructuring the targets, outputs, and activities described in the PMR.

1.4.4 Efficiency

The Project had significant shortcomings in terms of allocating GEF and counterpart resources towards the achievement of the objectives, outputs and targets set out at the design stage and subsequently described in the PMR (Results Matrix).

1.4.5 Impact

The design included impact indicators (section 5.1.2) which were not measured with the M&E system designed in the Project Document because the Logical Framework was replaced with the Results Matrix with a view to increasing the consistency with the Loan Program, where the counterpart funds came from. Result indicators were also included, most of which were not SMART[3]: they were specific, not easily measurable (although targets were set), hardly achievable, but relevant because they were consistent with the development issues (and, in the vertical logic, with the components and outputs), and even if they were limited to the period of the technical cooperation (TC), they were difficult to achieve.

Based on the interviewees' opinions, among other additional (qualitative) impacts generated by the Project and attributable to the four components are:

- *The possibility to perform surveillance and control activities increased due to the construction of the COC of San Miguel de La Palotada.*
- *It promoted the generation of climatological information through the financing three meteorological stations for the CONAP Monitoring and Evaluation System (CEMEC). In addition, an aerial photography camera was purchased, which also contributed to generating information.*
- *It promoted increased control of the PAs in the MBR, especially as regards forest fires, due to hiring technical staff, resource rangers and forest firemen.*
- *It promoted the design and approval of public management instruments for the PAs through the development of management plans (Maya Biosphere Reserve, Yaxhá-Nakum-Naranjo and Cahui National Parks).*
- *It carried out a pioneering study at forestry concessions entitled "Evaluation of the effect of forest management on the genetic diversity of mahogany trees and cedars".*

[3] SMART: specific, measurable, achievable, relevant, and timely.

- *CONAP was supported through the hiring of consultants and managers at the local (Peten) and central levels.*

1.4.6 Sustainability

This Project did not make a systematized effort to fulfill most of the outputs in the four components originally designed as part of the Logical Framework - which then evolved into the Results Matrix -, so the impacts are very scarce and the only sustainable impact is that related to the purchase of meteorological stations and aerial photography cameras, which will be maintained by CEMEC and will generate information that will help protect biodiversity.

1.5 Summary of lessons learned and recommendations

There follows a summary of the lessons learned and most relevant recommendations.

Table 3: Lessons learned and most relevant recommendations

LESSON LEARNED	RECOMMENDATION
Engaging the government is critical to render long-term objectives sustainable and legitimate	The implementation of the Project should be delegated to private autonomous entities
If a Project is relevant for the Government, it is easier to generate ownership and achieve effectiveness and efficiency in the achievement of its objectives	Political support should be sought - first from MARN and CONAP - to design policies and regulations that contribute to achieving the expected goals
The materialization of the risks and assumptions of the Logical Framework impacts on the achievement of the Project's outputs and indicators	Risk analysis should be implemented as a planning instrument which should be regularly updated as it helps mitigate or overcome any obstacles the Project may come across
Procurement processes and financial reporting for this type of projects are complex	More training and support to the administrative officers in charge of the Project's financial processes should be included by the IA in its Operations Plan
Implementing Agencies (IA) should be strict in demanding the fulfillment of the agreements and commitments made, especially at times when social, political or economic conditions are adverse	The IA should carry out constant monitoring and be firm in its decisions in order to ensure that the GEF resources transcend the prevailing conditions
The study on the genetic diversity of mahogany trees and ceders points at the possibility that the community forestry concessions may maintain the genetic biodiversity of these two species just like the control PAs do. This is due to illegal logging in the PAs which are not under concessions.	Given that this study has drawn only partial conclusions, it is necessary to carry on with it and support it as necessary for it to conclude
Management plans are effective in promoting PA management and empowering stakeholders	It is necessary to carry on developing Master Management Plans in the MBR, with an emphasis on community participation

LESSON LEARNED	RECOMMENDATION
NGOs are well prepared to develop complex projects at technical and administrative level if the IA works closely with them	Civil society organizations selected to execute relevant technical assistance projects should have proven experience and reputation and receive continuous support from the IA
A comprehensive communication process involving all key stakeholders is critical if we are to implement effective planning and increase the possibility for this type of projects to achieve significant impacts	Projects require a communications strategy and financial resources - as part of their budget - in order to create synergies and promote transparency
Creating synergies with other projects and initiatives is critical	It is necessary to map out and design a coordination structure so as to ensure a continued achievement of objectives
The securing of co-financing (especially from private sources) or additional resources for GEF projects is a challenge that can be overcome but which requires proper handling	The Project design should contemplate the allocation of time and resources to the securing of co-financing, especially from private sources
Ecological sustainability depends not only on the project activities; it is important to create spaces for dialog to foster natural resource conservation	It is of utmost importance to promote participation processes, which should be refined during the implementation of the strategy
The strategy for biodiversity conservation and sustainable use should contemplate the participation of and effect on women and young people who are part of the relevant stakeholders	It is necessary to improve the communication in order to more efficiently reach the women and young people in the communities

2 BASIC INFORMATION

In USD

IDB Project ID: ***GU-X1001 and GRT/FM-11375-GU;*** *GEF ID:* ***2687;***
Title: "**Improvement of Management Effectiveness of the Maya Biosphere Reserve**"
Country: Guatemala
Beneficiary: Republic of Guatemala
Sector/Subsector: Environmental Programs
Executing Agency: Ministry of Environment and Natural Resources (MARN) and National Council on Protected Areas (CONAP)
Board Approval Date: 12-3-2008
Effective date of grant: 08-10-2009
Eligibility date for first disbursement: 11-25-2009
Amount of the Non-Reimbursable Investment Financing Agreement
Original amount: 3,660,000 (Grant of the Global Environment Facility - GEF)
Actual amount: USD 3,660,000
Counterpart funds (Cofinancing): USD 10,940,000
Total project cost: USD 14,660,000
Execution months
From approval: 96
From the execution of the Non-Reimbursable Investment Financing Agreement: 60
Disbursement periods
Original date of final disbursement: 08-10-2014
Effective date of final disbursement: 12-10-2016[4]
Cumulative extension (months): 28 months
Special extension (months): N/A
Disbursements
Total amount of disbursements up to date: USD 3,452,423.71

[4] CID/CGU-1753/2014 Non-Objection, July 21, 2014: Under section 2.04(a), the execution period was extended to August 10, 2015, and under section 2.04(b), the disbursement period was extended to February 10, 2016. Afterwards, under section 2.04 of the CED/CGU-139/2016 Non-Objection of February 3, 2016, the execution period was extended to June 10, 2016, and the disbursement period was extended to December 10, 2016, under section 2.04(b).

3 INTRODUCTION

3.1 Purpose of the evaluation

Terminal evaluations (TEs) provide an independent, comprehensive, and systematic account of the performance of a completed project. They consider the whole of the effort, from the design of the project to its implementation and termination, and also take into account its likelihood of sustainability and potential impacts. They are conceived to identify problems in the design of a project, evaluate the achievement of objectives, identify and record lessons learned, as well as provide recommendations on specific actions to be taken to improve the execution of other projects. These evaluations provide an indication of the success or fail of a project.

3.2 Scope and methodology

TEs follow the guidelines, rules, and proceedings established in the Guidelines for GEF Agencies conducting Terminal Evaluations, GEF Evaluation Office Ethical Guidelines.

They use the relevance, effectiveness, efficiency, sustainability, and impact criteria. Below are the general evaluation questions, based on which, a set of questions exhaustively covering each of the aforesaid criteria included in the ToR were formulated (Annex 1).

- *Relevance*: How consistent is the project with the main objectives of the GEF focal area and with the environmental and development priorities at the local, regional, and national level?
- *Effectiveness*: Are the actual project outcomes commensurate with the intended project objectives?
- *Efficiency*: Was the project efficiently implemented in accordance with national and international rules and standards?
- *Sustainability*: Are there financial, institutional, socioeconomic, or environmental risks that may jeopardize sustainability of project outcomes in the long term?
- *Impact*: Is there evidence that the project has contributed to reducing environmental stress or improving the ecological status?

The evaluation must provide information based on credible, trustworthy, and useful information. The evaluation uses a participatory and consultative approach which ensures a close cooperation with government officials, especially from the GEF operational focal point, the IDB country office, the project team, the GEF/IDB Regional Technical Advisor, and key stakeholders. To achieve this, it uses a questionnaire upon which the interviews are based (Annex 1). A mission to the City of Guatemala and Peten took place from March 13 to 16 (Annex 2), which included a visit to the project office and other key stakeholders based both in the City of Guatemala and in Peten.

The aforesaid dimensions were rated based on the evaluator's criteria using the ratings key of the "Guidelines for GEF Agencies conducting Terminal Evaluations", which is provided on Table 4.

Table 4: **Evaluation ratings key**

RELEVANCE, EFFECTIVENESS, EFFICIENCY AND IMPACT RATINGS	SUSTAINABILITY AND RISK RATINGS
6: Highly satisfactory (HS): no shortcomings.	4. Likely (L): negligible risks that affect sustainability.
5: Satisfactory (S): minor shortcomings.	
4: Moderately satisfactory (MS): moderate shortcomings.	3. Moderately likely (ML): moderate risks.
3. Moderately unsatisfactory (MU): significant shortcomings.	
2. Unsatisfactory (U): significant shortcomings.	2. Moderately Unlikely (MU): significant risks.
1. Highly unsatisfactory (HU): severe shortcomings.	1. Unlikely (U) severe risks.

Source: *Adapted from GEF 2008.*

4 PROJECT DESCRIPTION

The Government of Guatemala (GoGu) signed an agreement with the Inter-American Development Bank (IDB) to implement a Strategy for the Participatory and Inclusive Conservation of the Maya Biosphere Reserve (MBR), which was partly implemented by the following initiatives:

- *Peten Sustainable Development Program for the Conservation of the Maya Biosphere Reserve (PDPCRBM), financed with an IDB loan in the amount of USD 30,000,000 and approved in 2006 (1820/OC-GU).*
- *The Improvement of Management Effectiveness of the Maya Biosphere Reserve Project (PMEMRBM), financed with GEF funds in the amount of USD 3,360,000.*

This document provides a final evaluation for the latter - i.e. the PMEMRBM. *The development objective of the PMEMRBM is the conservation and sustainable use of biodiversity in the MBR, with an emphasis on the areas of high biological importance, by strengthening institutional capacity and through the effective participation of different stakeholders so as to optimize its management. The global objective is to contribute to the ecological integrity and connectivity of the Selva Maya, a region which is highly significant for the biodiversity of Mesoamerica.* The specific objectives are to:

(i) Strengthen the institutional arrangements needed for the effective, sustainable, and participatory management of biodiversity in the MBR
(ii) Foster the conservation and sustainable use of biodiversity in the MBR
(iii) Support the implementation and monitoring of policies, standards, and other instruments for managing the MBR
(iv) Contribute to the generation and administration of information for the adaptive management of the MBR

The Project components are described below (IDB 2008).

Component 1: Strengthening the institutional arrangements and the capacity for effective management of biodiversity in the MBR

Both the PDPCRBM and the PMEMRBM included the strengthening of governance as one of their strategic lines, particularly contributing to the process of decentralization, with a view to greater coordination with and participation of communities and local governments. Under this component, the GEF Project primarily financed capacity building for biodiversity conservation of CONAP (activities 1b, c and d), while the loan focused on building capacity of the other government institutions (e.g. MARN), municipalities and COCODES in natural resources management.

This component included the following activities:

- *Strengthening institutional capabilities for governance of the MBR*
- *Improving and developing new mechanisms for co-management in core zones, biological corridors, community polygons, and other special use areas*
- *Strengthening the operational capacity of the CONAP in the MBR*
- *Partnerships with the formal education sector in the region for environmental education and skills training*

Component 2: Fostering the conservation and sustainable use of biodiversity in the MBR

This component promoted the adoption of natural resource use practices for the purpose of diversifying the local economy and generating new income, thus stabilizing encroachment onto protected ecosystems with important biodiversity value. In addition to creating off-farm employment opportunities, a key objective was to foster the conditions and develop the systems that would make it economically feasible for farmers and other resource users to intensify and diversify production in ways that are environmentally sustainable, thereby helping them to limit pressure on remaining forest.

The PDPCRBM resources financed activities in the Multiple-Use Zones (MUZ) and Buffer Zones (BZ) as well as south of the MBR, while the GEF resources helped systematize best practices for productive activities and financed innovative investments compatible with the use restrictions of Core Zones (CZ), Special-Use Zones (SUZ), and biological corridors (BC).

This component included the following activities:

- *Innovative investments in the use of biodiversity and environmental goods and services of the MBR*
- *Diversification of forestry products and entrepreneurial training for the administration of concessions*
- *Low-impact nature-based tourism activities and tourism circuits in the CZ, BC and MUZ*
- *Incentives for sustainable agricultural activities in appropriate areas.*

Component 3: Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR

This component helped harmonize and improve the implementation of public policies directed at the Peten region, and in particular at the MBR, in connection with key factors in the loss of biodiversity, such as those related to land security, sectoral development policies and the absence of a secure source of financing for conservation activities. The resources of the PDPCRBM were directed primarily at the sustainable financing mechanism.

This component included the following activities:

- *Supporting the resolution of land and resource use conflicts in the MBR, particularly in the BC and CZ to the west of the 90º meridian*
- *Improving policies, rules and regulations for controlling threats in the MBR*
- *Supporting the environmental audit and expert assessment functions performed by judicial officers in the MBR*
- *Implementing financial mechanisms for the sustainable use and conservation of biodiversity in the MBR*

Component 4: Generation and use of information for the adaptive management of the MBR

The purpose of this component was to improve capacities to collect and administer accurate and timely information required for adaptive management of the MBR.

This component included the following activities:

- *Consolidating and improving the exchange of information for the management of the MBR*
- *Establishing a system for monitoring and evaluating the performance and impact of the MBR management*
- *Developing a research agenda for biodiversity conservation*

The Project recognizes that the ecological integrity of the MBR as a critical part of the Selva Maya depends on a substantial improvement of its management effectiveness. To this end, the Project strategy had several important features including:

(i) A regional approach that places the MBR within a broader context of the Department of Peten and addresses the root causes of biodiversity loss, such as poor coherence in sectoral policies.

(ii) A focus on participatory conservation, which turned the communities settled in the MBR into allies of the MBR, instead of a threatening element.

(iii) Self-reliance with an emphasis on the horizontal transfer of knowledge and experience among communities and user groups so that they could manage their territories and resources while also reducing conflicts and improving the quality of life of their inhabitants.

(iv) Consolidating and expanding the network of co-administrator organizations in specific parts of the MBR.

(v) Capacity building and the promotion of institutional leadership that would make it possible for the administrators of the MBR (CONAP and others) to handle the different situations that stem from the direct and indirect influence of the communities settled in or around the MBR.

(vi) Land use management to ensure a balance between the activities that fostered sustainable production and those associated with protection for the zones of high biological importance.

(vii) Monitoring and evaluating the Project and the situation of the MBR.

5 FINDINGS

5.1 Analysis of the Project's design and formulation

5.1.1 Analysis of the design: identification of development issues to be solved

The Project Document (PD) clearly identified the development issues listed below, which were used as inputs to the design of the Project (components, subcomponents, and activities) (IDB 2008):

Table 5 Identification of development issues in the design of the Project

ISSUE	DIAGNOSIS CLARITY	TARGETED BY THE TC?	EXPLANATION
Fires and their effects on the natural vegetation cover and associated fauna	VC	Yes	Fires and their effects on the natural vegetation cover and associated fauna are monitored in the MBR: • *The most critical year in recent times was 1998, when the area affected by fires covered 440,000 ha* • *In 2003, 398,000 ha of forests and wetlands were burned (approximately 19% of the total area of the MBR)* • *In the PNLT alone, fires affected more than 40% of the total area* While the frequency of fires is closely associated with cycles of droughts, other human-related factors such as unsustainable land use practices contribute to the threat.
Conversion to unsustainable agricultural uses	VC	Yes	The agricultural frontier is rapidly advancing in the MBR, placing direct pressure on the CZ and biological corridors. An estimated 10% of the MBR was converted to agricultural uses between 1986 and 2004. Conversion rates were 6% in the cores zones and 2% in the MUZ. The expansion of agricultural uses has followed road corridors in the vicinity or within PNSL[5] and PNLT[6], such as those to Naranjo and Bethel. Unsustainable practices such as cattle ranching and the use of agrochemicals are prevalent along these corridors, leading to encroachment on forests and potential contamination of aquatic ecosystems.
Unplanned human settlements	VC	Yes	Along with the advance of the agricultural frontier, population growth (7%-10% per year) and immigration further threaten the ecological integrity of the MBR. Population growth is estimated to be 7% to 10% per year, largely due to the immigration of poverty-stricken farmers from the highlands to the south. The situation is particularly alarming in PNLT, where the number of settlements grew from 13 communities in 1999 to 42 communities and numerous smaller agglomerations in 2003, leading to increased land use conflicts, contamination due to the absence of solid and liquid waste management, illegal activities such as poaching and illegal logging, and other related threats. Rapidly changing land use has widened the gap between the official zoning scheme for the Reserve as established in the 2001-2006 Master Plan and reality on the ground, further aggravating conflicts over land and resource use. The

[5] Sierra Lacandon National Park

[6] Laguna del Tigre National Park

ISSUE	DIAGNOSIS CLARITY	TARGETED BY THE TC?	EXPLANATION
			general lack of security, particularly in the border zones, adds to the potential conflicts and difficulties in enforcing zoning regulations.
Oil industry	VC	No	It constitutes a challenge for biodiversity in the MBR, particularly for PNLT where rights to explore have been granted in about 55% of the area. While this is an economic necessity for the country and the direct effects of the operations are unknown, an analysis of tissue samples of two species of fish in PNLT showed evidence that individuals collected at varying distances to one of the oil wells were stressed, possibly due to exposure to contaminants such as heavy metals, chlorinated hydrocarbons, arsenic and other compounds. The oil industry has also led to the creation of roads into previously unsettled areas and the lack of control further contributed to the conversion of natural ecosystems. The identified threats are consistent with the 2001-2006 Master Plan and reflect the weakness of existing governance structures and conflicts that arise when high-value natural resources such as petroleum, coincide with areas of high biodiversity and environmental value. These threats are also the result of several inter-related causes related to socioeconomic conditions, policy issues and institutional capacity.
Marginalization of the population and insecure rights to land and resource use	VC	Yes	Poverty is prevalent in the MBR as evidenced by the reliance on subsistence agriculture, limited or non-existent access to basic services, illiteracy rates and absence of secure land and resource use rights. Socioeconomic surveys conducted in the region[7] have highlighted the importance of poverty and food insecurity in land use strategy and concluded that farmers' ability to reduce pressure on forested areas through the adoption of more intensive (but sustainable) practices is constrained by weak market conditions and prices, low levels of farmer organization, lack of secure land and resource use rights, and limited sustainable alternative livelihoods. Clarifying land and resource use in and around the MBR is thus fundamental.
Absence of fully endorsed integrated conservation strategy with a regional vision	VC	Yes	While considerable funds have been invested in conservation initiatives in the last decade, these initiatives were often undertaken without a view to the socio-ecological integrity of the MBR. Land use and management plans, where they exist, have had limited support from local stakeholders, including municipalities. While information exists on the status and trends within the MBR, it has not been used effectively to develop management strategies that adapt to the changing conditions of the Reserve.
Poor coordination and regional development policies that are incompatible with the conservation of biodiversity	VC	Yes	Coordination among institutions responsible for specific sectors (agriculture, energy, tourism) has been absent, limited or even contradictory often leading to conflicting stances on how resource management and development should take place in the MBR. Underlying economic private and public interests (e.g., cattle ranching, petroleum production) have driven the formulation of policies that do not mainstream biodiversity conservation. While several cooperation agreements exist between institutions with jurisdiction over the MBR (such as the agreements between local governments and communities for fire prevention and control), there is limited capacity to ensure compliance with these agreements.
Insufficient resources and capacities for	VC	Yes	The limited operational capacity of the Regional Office of CONAP in Petén is not sufficient for adequate administration of the MBR. Training, technical assistance and awareness-raising efforts are still

[7] Avrum Shriar. 2002. *Food security and land use deforestation in Northern Guatemala*. Food Policy.

ISSUE	DIAGNOSIS CLARITY	TARGETED BY THE TC?	EXPLANATION
biodiversity conservation			weak, limiting the possibilities of working systematically to manage the Reserve as an integrated system. As a result, its capacity to exercise adequate control and surveillance of the MBR (including the prevention and control of forest fires), follow-up on plans, resolve land-use conflicts, including the legal processes for recovering illegally occupied territories, and expedite administrative procedures faces severe constraints that, when combined, threaten the ecological integrity of the MBR, particularly in the CZ and biological corridors. The presence of CONAP and other institutions across the Reserve tends to be sporadic.
Lack of a sustainable source of financing for biodiversity conservation	VC	Yes	As CONAP's budget represents about a third of the funds needed for effective management of the MBR, conservation initiatives depend, with few exceptions, primarily on external project financing that cannot support the recurrent costs of routine management functions such as monitoring, fire prevention and control and surveillance. This dependency on external sources creates a disincentive for the scarce government funds to be allocated to financing the management of the MBR. In addition, the centralized administration of the scarce resources hinders local participation and management adapted to the social and biophysical conditions. The Stewardship Fund (Fondo Patrimonial) created for Yaxha National Park demonstrates how mechanisms can be established to fund conservation activities with the active participation of the private sector and other local stakeholders.

NB: VC= Very Clear C= Clear NC= Not Clear NM= Not Mentioned

Source: IDB 2008, progress reports and interviews 2017.

This Project was extensively discussed with CONAP and MARN in order to strengthen the government's institutional action, as well as the mechanisms for cooperation with the civil society and private sector stakeholders related to the MBR.

5.1.2 Analysis of the design: results framework and risks identified

The Results Matrix had a vertical logic: the indicators and activities were consistent with the outputs, the outputs with the components, and the components with the objective. The objectives, components, outputs, activities, and indicators were clear though not necessarily feasible[8]. In addition, both components and outputs were consistent with and related to the development issues identified.

The outcomes described in the Project Document, Logical Framework, were largely SMART: *specific* as to what was expected to be achieved, *measurable* for they had indicators that could be measured -though some were difficult to monitor-, not *achievable* (considering the inefficiency of public institutions), *relevant* because they were consistent with the aforementioned development issues, and *timely* because they were limited to the period of the technical cooperation.

[8] As referred to in the Mid-Term Report: "*In addition, the logical framework of the GEF Project specifies a number of qualitative goals which actually reflect the tasks to be completed by the executing entity to formulate and design the projects and activities to achieve those goals –which tasks exceed the institutional capacity of the Program."* (OTSCORP 2014).

The risks were described in the Project Document and subsequently adapted to a matrix (Table 4 provides a key on the ratings used, which were assigned by the evaluator based on his own judgment, as described in the PROJECT DOCUMENT).

Table 6 Risks anticipated in the Project Document (a)

TYPE OF RISK	PROPOSED MITIGATION
1a. Limited management capacity and sporadic presence of the institutions responsible in the MBR	This risk was expected to be mitigated by the activities in Component 1, through a combination of capacity building and expansion of co-management arrangements to extend the coverage of management activities in a cost-effective manner. In addition, risks associated with potential delays in execution were minimized by a gradual sequencing of activities in line with the capacities of organizations that have prior experience with similar projects, early engagement of communities and decentralized management.
2a. Social and political instability in the MBR	Mitigated by the decentralized governance structure to receive support through the IDB loan and the emphasis on the participation of key stakeholders including the municipalities and COCODES in the project planning, monitoring and evaluation cycle.
3a. The dependence on government annual funding for recurrent costs until financial sustainability mechanisms are in place	This was planned to be managed through: (i) close monitoring of the annual budgetary process to ensure that the required allocation is planned for in advance; (ii) the gradual phasing in of government financing of recurrent costs during project execution and (iii) early endorsement of the Operational Plan in Year 1 of the project to leave sufficient time for its implementation.

NB: *Likelihood of materializing (*Table 4*), in the opinion of the evaluator, based on the information available from the Project Document: Unlikely (U)* *Likely (L)* *Moderately unlikely (MU)* *Moderately likely (ML)*

Source: OP and GEF risks classification.

5.1.3 Analysis of the design: monitoring and evaluation, and coordination of their application by MARN, IDB, and the partnering institutions

The Project Document (PD) duly provided for the use of monitoring and evaluation instruments (AOP, risks matrix, PMR, budget execution plan, procurement plan, tracking tool, half-yearly report, external audits, and mid-term and terminal evaluation, among others), and laid down the responsibilities of the EA (MARN), the co-executing agency (CONAP), and the following key staff of the Executing Unit (EU): executive director (in charge of both the loan and the GEF program), technical director (directly responsible for the GEF project), and a project specialist assigned to the planning and supervision of activities financed with GEF resources. The EU was based in Peten and had support staff in the City of Guatemala[9].

The Project Document also included a detailed and moderately suitable design to facilitate the fulfillment of the objectives and outputs of the Project from an internal perspective considering the administrative and technical aspects, and from an external perspective considering the co-executing agencies and partnering institutions; however, it overrated the response capacity (speed) of the institutions involved.

[9] Administrative and financial staff in the City of Guatemala, reporting to MARN's Administrative and Financial Directorate.

The monitoring and evaluation system relied on a set of indicators which was expected to make it possible to monitor the ecological and socioeconomic conditions of the Reserve (with emphasis on ecological integrity, connectivity, biodiversity, sustainable use and threats), and the impacts of the various conservation and management efforts carried out in the context of its administration. Indicators were also included for monitoring the Project's progress in terms of execution in a manner consistent with the requirements of the GEF and its tool for monitoring its strategic priorities (SP1[10]). These indicators were incorporated to the Logical Framework.

The execution scheme had a logical structure: the executing agency for the GEF project was MARN with the technical support of CONAP as co-executing agency[11] due to the fact that the Peten Development Program for the Conservation of the Maya Biosphere Reserve (PDPCRBM) -were the co-financing came from (Table 1)- was run by said ministry and in order to take advantage of its installed capacity[12]. The executing unit (EU) was the same for both the loan and the donation.

Therefore, this GEF project built on the Peten Development Program for the Conservation of the Maya Biosphere Reserve (PDPCRBM), a six-year investment loan in the amount of USD 30 million, of which USD 10.94 million were used as co-financing[13]. The loan aimed at

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10 Tracking tool for GEF Biodiversity Focal Area Strategic Priority One: "Catalyzing Sustainability of Protected Areas"

11 MARN assumed full administrative, financial, and management coordination responsibilities vis-à-vis the Bank and the GEF for both operations. As an executing agency, CONAP was expected to assume the day-to-day technical responsibility of the GEF Project through an inter-institutional agreement with MARN. This agreement as well as the first disbursement of the resources of the financing under Loan Contract 1820/OC-GU were conditions precedent to the first disbursement of the GEF resources.

12 MARN was responsible for the accounting and financial management of the Program and the Project. Its duties included the following activities:

(i) Maintain specific, separate accounting and budget records for the grant resources.
(ii) Have adequate internal audit structures.
(iii) Have a detailed accounting and reporting system for the administration, recording and payment of contracts for works, goods and consulting services.
(iv) Present the program's consolidated financial statements in a timely fashion and make the accounting information and other necessary documentation available to the Bank and the external auditors.
(v) Maintain appropriate records of disbursement requests.
(vi) Maintain an adequate filing system for documentation supporting eligible expenditures for verification by the Bank and external auditors. A revolving fund of 5% of GEF funds would be established. MARN would present the Program's financial statement annually in accordance with the General Conditions to the TC agreement. These statements will be audited by an independent firm of auditors acceptable to the Bank, based on terms of reference approved in advance by it (document AF-400) and using the Bank's standard procedures for the selection of external auditing services (AF-200).

13 MAGA executed the IDB-funded Sustainable Development Program for Peten (973/OC-GU and 974/OC-GU) in an area to the south of the MBR and with some specific interventions in selected parks and in the Buffer Zone. This includes restoration of archaeological sites (Yaxha and Aguateca), sustainable natural resource management, systems for environment-friendly agricultural production and regularization of land titles.

The World Bank Land Administration Project has two components, namely:

(i) Cadastre and regularization of lands in the southern parts of Petén (excluding the CZ and MUZ of the MBR).
(ii) Opening a registry office in Petén to modernize management of the registry files.

By targeting land tenure issues in the southern part of Peten, this project was expected to contribute to reduce the migration towards the MUZ and CZ of the MBR, thus reducing pressure on its biodiversity and natural resources. The GEF Project benefited from that project in terms methodologies and information bases.

Two GEF projects have been carried out in the MBR, from which lessons have been drawn:

(i) Support for the management and protection of the Laguna del Tigre National Park and Biotope (GEF/World Bank).
(ii) Strengthening of community management in the Bio-Itza Reserve (GEF/UNDP).

The results from the GEF/UNDP enabling activity "Definition National Priorities and Assessment of Capacity Building Needs in Biodiversity in Guatemala" were taken into account, particularly those related to biodiversity information management. Monitoring and research activities in the MBR were integrated with the systems already established by the Regional Program for Consolidation of Mesoamerican Biological Corridor (UNDP/UNEP/WB), which is coordinated by the Central American Commission for Environment and Development (CCAD), and information links were established with the Inter-American Biodiversity Information Network (IABIN–GEF/WB). Finally, there has also been coordination with the regional GEF/IDB/World Bank project on Integrated Ecosystem Management in Indigenous Communities, which has Peten as one of several priority sites in Central America.

promoting the conservation of the MBR through sustainable use, inclusive and participatory management of natural resources, cultural heritage, tourism activity, and environmental management with a view to improving the quality of life of Peten residents[14].

Operating Regulations for the execution of the PDPRBM and the GEF Project were prepared. These Regulations, approved by MARN, established the rules and procedures for each component, eligibility criteria for demonstration and pilot projects, the procedures for preparing the Annual Institutional Action Plans (AIPs) and Annual Operational Plans (AOPs), and the methodology for evaluating and monitoring the AIPs and AOPs. As a condition precedent to the first disbursement, MARN had to present evidence that the agreed-on Operating Regulations were in effect.

CONAP, MARN, INGUAT, MICUDE/IDAEH, MAGA, MEM, and SCEP were expected to continue to participate in the Inter-Institutional Commission for the Sustainable Development of Peten (CIDSP), institutionalized by governmental decree to act as an oversight body for PDPRBM, including the GEF Project. CIDSP, as a forum to ensure coherence in sectoral policies through regular, informed exchanges between agencies that had jurisdiction on the MBR, would be responsible for inter-institutional coordination on all policy matters related to the Project, would be the highest instance of approval of the POA and would oversee the development of the Operations Plan.

5.2 Analysis of project implementation

5.2.1 Analysis of project implementation: Results Framework

Overall, the Project was properly designed, except for some inconsistencies derived from excessive optimism about the following aspects:

- *Logical Framework: the objectives and targets were too ambitious[15] - in terms of budget, time frames and institutional capacity - and departed from reality. In addition, there was no consistency between the design and the execution of the Project.*

The Wildlife Conservation Society (WCS) was actively involved in monitoring the ecological integrity of the MBR, which was fully integrated with the monitoring efforts financed with the GEF Project. The German Technical Cooperation Agency (GTZ) and the government of the Netherlands actively participated in financing the Forestry Action Plan, which promoted the process for granting community and industrial forestry concessions, a sustainable management mechanism that has proven successful. The government of The Netherlands financed a project for institutional strengthening of the CONAP, with some actions in the Peten region, with which synergies were ensured, particularly in connection with the strengthening of monitoring and information management capacities.

14 The program had the following components:

(i) *Sustainable Management of Natural Resources and the Environment: management support to the MBR, and the following subjects: (a) management support to four PA complexes south of the MBR (411,000 ha); (b) diversification of productive activities in the BZ and in the southern part of Peten with an emphasis on families living in extreme poverty with a view to stabilizing the agricultural frontier; and (c) pollution control and water quality monitoring in the watershed of Lake Peten Itza (immediately south of the MBR).*

(ii) *Enhancement of archaeological and other tourism sites, including financing for restoration and rehabilitation of archeological sites and small-scale infrastructure for nature-based and cultural tourism circuits.*

(iii) *Institutional strengthening, including strengthening of local organizations such as the COCODES and local tourism committees, implementation of the municipal action plans, operational decentralization of agencies such as MARN and INGUAT and a public awareness program on the benefits and environmental services provided by the protected areas of Peten. The GEF Project fits within the first component of the investment loan and was conceived to complement that program thematically and geographically.*

15 As referred to in the Mid-Term Report: *"However, when we go down to the purpose level, the indicators (mostly related to outcomes) reflected a more concrete but ambitious, ambiguous and not necessarily feasible scope, especially as regards the detail of the specific activities that should generate those outcomes". "These goals where unrealistic and unlikely to be achieved; in fact,*

- *Communication: The Project's execution would be accompanied by a comprehensive communication plan cross-cutting each component, whose objective was to inform and promote effective participation of stakeholders in execution and to identify windows of opportunity for local participants to provide feedback.*[16]*. However, this plan did not get executed (no previous consultations were conducted) and decisions were taken in the City of Guatemala without considering on-site implications (Peten). Even in the City of Guatemala itself there was little communication among stakeholders.*
- *Inter-institutional coordination: assumptions were that there would be proper coordination, especially among the institutions which are part of CIDSP.* In addition, while the EU was supposed to be based in Peten, it operated from the City of Guatemala most of the time. There was mistrust among the institutions; CIDSP never operated at operating level and there was friction between MARN and CONAP as a result of the earlier being responsible for administering the funds and the latter for executing the activities.
- *Turnaround and approval times: in practice, there was great bureaucracy within MARN and little interest in getting things approved fast, especially as concerns procurement, and its executing capacity was very low. On top of this, the procedures required by the GEF Project made the situation worse, as each procurement/hiring required completing a process.*
- *Counterpart staff: there was very high turnaround, at both CONAP and MARN (and in the other public institutions, including the EU), which had a negative impact on the historical memory of the Project and the management capacity.*
- *Arrangements: the arrangements contemplated in the Project Document were expected to be executed, but some were not or were signed but not performed.*
- *Political influence: pressure was exerted towards the hiring of public servants. In many cases the companies hired did not do a good job, but the payments were nevertheless made and the bonds were not enforced.*

5.2.2 Analysis of project implementation: risks framework

The Project's Risk Matrix was updated in the PMR, but the risks identified in the Project Document were overlooked (**Table 6**Table 6), namely:

Table 7 **Risks updated in the PMR (b)**

TYPE OF RISK	COMMENTS	LIKELIHOOD	IMPACT	RISK LEVEL	COMMENTS TERMINAL EVALUATION
1b. Increased value of the San Miguel La Palotada COC	It could affect the distribution of project resources, which would require the authorization of the GEF Secretariat	Low	Low	Low	The issue with the COC was that it was a costly non-self-sustainable[17]

they were supposedly reformulated in 2010, as evidenced by the HPRs. The second HPR of 2010 introduces the indicators of the "results framework", instead of those of the logical framework." (OTSCORP S.A. 2014).

16 The Plan was supposed to encompass the following: promoting local awareness and environmental education through formal and informal channels, informing the public at large of progress and lessons learned, and involving local organizations in the planning, monitoring and evaluation cycle of the Project.

17 In terms of energy generation and drinking water supply. While a fossil fuel electricity generator (which generates GHG emissions) was bought with project resources, there are no resources available to put it into operation.

TYPE OF RISK	COMMENTS	LIKELIHOOD	IMPACT	RISK LEVEL	COMMENTS TERMINAL EVALUATION
					infrastructure[18], and there were no resources available for its maintenance.
2b. Coordination between CONAP Peten and the head office in Guatemala City	Could result in delays in the implementation of productive processes in the MUZ.	High	Low	Medium	Based on the interviews made, there is very little coordination and decisions are taken at the head office without participation of the Peten office, or prior consultation, and without considering on-site implications.
3b. Budget cuts at CONAP	Could result in little participation in the design and implementation of activities	High	Low	Medium	No funds from the national operating budget were secured within CONAP in order for the project activities to be sustainable.
4b. Health conditions of the program coordinator	Negatively affects the execution capacity of the operation	High	Medium	High	Rather than the health conditions of Fernando Miyares, the problem was losing his operating capacity and his expertise in IDB projects, and that no substitute was hired.
5b. The cancelation of the COC for Cerro Lacandon NP	It will seriously impact the capacity of CONAP to mitigate depredation at the NP	High	High	High	The construction of the COC is a good strategy to fight illegal exploitation of natural resources

NB: *Likelihood of materializing (*Table 4*), in the opinion of the evaluator, based on the information available from the PMR and interviews made:* *Unlikely (U)* *Likely (L)* *Moderately unlikely (MU)* *Moderately likely (ML)*

Source: PMR 2017 and GEF risks classification.

While the project's initial objectives were not in theory altered, during the project execution the socioeconomical and environmental conditions prevailing in the country changed, which seriously and negatively affected the Project, namely:

- *Great staff turnover: six ministers served during four different administrations, with the consequent change of vice-ministers and even of technical staff, which greatly affected*

[18] It would have been better to build a larger number of less costly self-sustainable (in terms of energy and drinking water supply) COCs using local material.

the Project as the incoming staff had to get familiar with the Project, the new authorities set new guidelines and priorities, and, in general, the Project got delayed and lost continuity. On top of this, a change of authorities took place in Peten: governor, mayors, and representatives, among others. The PIR 2015 draws attention to this dramatic situation:

> *"Overall, over the last few years, the Mayan Biosphere Reserve has been lawless in some areas, with illegal organizations focusing on occupying the area. These activities include drug trafficking,[19] arms trade[20], land grabbing,[21] illegal cattle ranching[22], illicit logging[23], cattle smuggling, migrant traffic[24], wildlife traffic[25], archaeological artifacts trade[26], and other crimes." IDB 2015.*

> *"Given this instability, 3 Environment Ministers led the MARN in a period of 5 months[27], all but paralyzing decision-making. Although CONAP is the main beneficiary of this Project, and remained stable until September 2015, the Project's administration is under the MARN. With the change of Environment Ministers, came the change of Project Director for the GEF and IDB project[28], and changes in the team, with several experienced specialists leaving the unit, and bringing execution to a halt." IDB 2015.*

- *A transitional government took over for three months due to the removal of the President of the Republic, Otto Perez Molina; this situation resulted not only in staff turnover, but also in political instability, negatively affecting the Project. In this regard, the PIR states as follows:*

> *"In addition, this FY 2014 – 2015 corresponded to the election period for the Country's Presidency and Congress, leading to institutional turmoil and subsequent installation of an interim government until the general elections of October 2015." IDB 2015.*

- *In 2014, a new procurement law was passed requiring that positions at the EU be filled with public servants and, thus, their salaries were reduced and some of the new staff members did not have the expertise required to manage IDB projects.*

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19 Insight Crime. Accessed Dec.11, 2015. http://www.insightcrime.org/news-analysis/guatemalas-new-narco-map-less-zetas-same-chaos

20 UN-OHCHR. Accessed Dec.12,2015. *"¿Petén, cuántos más? El camino para superar la impunidad* " http://www.ohchr.org.gt/documentos/ponencias/Palabras%20Representante%20Foro%20Pet%C3%A9n%2006jul11.pdf

21 Plaza Pública, Accessed Dec.12 2015.

22 New York Times, Accessed Dec.11 2015. http://www.nytimes.com/2010/07/18/world/americas/18guatemala.html?_r=0

23 Yale University, Environment 360, Accessed Dec.12, 2015. "*In the Land of the Maya, A Battle for a Vital Forest*" http://e360.yale.edu/feature/in_the_land_of_the_maya_a_battle_for_a_vital_forest/2580/

24 Prensa Libre. Accessed Dec.11, 2015. http://www.prensalibre.com/guatemala/peten/desarticulan-supuesta-banda-de-traficantes-de-menores

25 Insight Crime. Accessed Dec.11, 2015. Inside Guatemala's Animal Trafficking Trade

26 See p.4: http://traffickingculture.org/wp-content/uploads/2014/11/Yates-2014-Narcotics-Antiquities-Guatemala.pdf

27 Minister Michelle Martínez (Jan 2014 to May 2015); Minister Oscar Medinilla (May to Sept 2015); and Minister Andreas Lehnhoff (Sept 2015 on) see: http://enmedio.org/2015/05/problemas-politicos-mediambientales-en-guatemala/

28 The Project Director, Dr. Jorge Ruiz, coordinated from Feb. 2013 to Feb. 2015. He was replaced by Ing. Posadas (Mar.15 – July 15) and since by Ing. Moscoso.

- *Death of the GEF Coordinator Fernando Miyares, who held a strategic position and had the political influence necessary to make the Project progress. After his death, the position remained vacant – no one was ever hired.*

5.2.3 Analysis of project implementation: monitoring and evaluation

The project effectively used the following instruments to monitor and evaluate its activities in spite of their complexity, which resulted in a long learning process:

- *Annual Operational Plan (AOP): used to plan and monitor the activities to be carried out*
- *Risks Management Matrix updated every six months*
- *Half-yearly Progress Reports and annual supervision missions*
- *Budget Execution Plan (BEP)*
- *Project Monitoring Report (PMR) including information on the progress of the outputs and outcomes of the Project*
- *Procurement Plan (PP) updated at least every 12 months, used for the administrative monitoring of the project's goods and services*
- *Consulting reports: the contracts included terms of reference and had the Bank's non-objection, as provided in the POM*
- *External audits*
- *GEF (Biodiversity) Tracking Tool*
- *Identification of stakeholders*

The above instruments allowed properly monitoring all the activities, the financial execution, and the procurement processes, among other aspects. However, according to the people interviewed and the documents reviewed, there was a clear difference between the contents of the Project Document and the Results Matrix and what was actually executed (described in the PMR).

5.2.4 Analysis of the implementation: coordination of the project by IDB and the partnering institutions

Operatively, the Project aimed at strengthening CONAP, which, albeit lacked decision-making power, did have responsibilities - which points at a problem at the execution level. On top of this, CONAP lacked the leadership capacity necessary to empower itself and create the synergies planned for in the project design.

Procurement processes were highly burdensome and bureaucratic, and coordination was inefficient between MARN and CONAP, and between the head office of CONAP in the City of Guatemala and its Peten office. Coordination was also inefficient with the Association of Forest Communities of Peten (ACOFOP) in terms of supporting the productive processes that had been designed in cooperation with the community, such as the xate, cocoa, timber, ramon and chicle projects.

The IDB made visits and conducted technical missions where joint work was conducted with the different stakeholders (MARN, CONAP, ACOFOP, among others) to monitor progress and provide recommendations for an efficient operation of the project - although such recommendations were not fully implemented. For instance, some visit/mission reports read as follows:

"MARN and CONAP should define the activities to be conducted prior to the construction of the Joint Operations Centers (COC), especially those related to the commitments made by the government agencies involved in their operation and maintenance." (IDB 2011).

"The mission pointed out that the original design of the program (GEF project and loan) contemplated building a larger number of smaller-scale COCs. The bidding processes and strategy should take into account this change and consider the construction of COC modules that are consistent with the institutional commitments and available budget." (IDB 2011).

"4. Accelerating the implementation of the business plans of ACOFOP, as well as the investments under the sub-component 1.b of the loan. These investments are critical to meet the goals set by the program in terms of protecting the MBR." (IDB 2011).

"1. The Ministry, in cooperation with CONAP, should accelerate the implementation of the activities planned for the GEF project. The MARN and the CONAP teams need to get together in order to review the relevance of the activities proposed considering the project objectives." (IDB 2012).

"MARN should carry out the supplementary activities related to the works that will conclude in 2012. This includes: i) supporting CONAP and MICUDE in granting concessions for the commercial areas of the infrastructure; ii) defining and completing the process for buying furniture and equipment for the EPP, including the equipment for the San Miguel La Palotada COC; and iii) supporting the EPP in defining pending activities for the 2013 administration period." (IDB 2012).

"During meetings held in October and November 2012, which were analyzed once again during the portfolio review of November 2012, the need for accelerating the implementation of the GEF project was established. One of the main activities is supporting the business plans of ACOFOP". (IDB 2013).

In addition, annual meetings were held between IDB, CONAP and MARN, sometimes with the participation of ACOFOP, where the things that required financing were presented, but in all cases priority was given to the needs of CONAP notwithstanding the plans (e.g. hiring of resource rangers, forest firemen and equipment). However, specifically as regards the above mentioned examples, no activity was ever carried out with ACOFOP, and the only COC which was actually built (the large and costly San Miguel de la Palotada COC, which has been brought into question by many of the people interviewed) never got properly equipped and there were no funds available to maintain it.

5.2.5 Relevance

Overall, this project is rated 3 Moderately Unsatisfactory (MU) because it was moderately relevant in the aspects analyzed, harmonizing the needs and priorities of beneficiaries and stakeholders, and the results are related to the development issues and national and international regulations, but it overrated the institutional response capacity - and was excessively optimistic about the political conditions prevailing in the country.

5.2.5.1 Relation between the project and national and international regulations

The Project was consistent with the National Biodiversity Conservation and Sustainable Use Strategy, with the National Policy and the Development Plans, and the CONAP Institutional Strategic Plan. At the project design stage, the Government attributed special importance to environmental issues in connection with rural development (Strategic Agenda for Comprehensive Rural Development in Guatemala), national competitiveness (National Agenda on Competitiveness), and in its Guate Verde program. Guatemala is also a signatory to the International Convention on Biological Diversity and has had a National Strategy for Biodiversity Management since the late 1990s. An important part of its strategy has been the creation of its national system of protected areas (SIGAP) administered by CONAP and of which the MBR represents approximately 75%. Under the SIGAP, conservation regions were established in order to optimize the allocation of knowledge and resources and promote the incorporation of lessons learned. The measures expected to be financed by this Project were therefore consistent with the policy and strategic lines of SIGAP.

The Project was also directly aligned to the IDB Country Strategy for Guatemala 2004-2207, whose main objective is mitigating poverty with an emphasis on supporting government efforts towards a sustainable economic growth and generation of job opportunities (IDB 2005).

The Project was formulated according to the GEF "Biodiversity" Focal Area and the Operational Program #3 "Forest Ecosystems". Likewise, the Project was consistent with the GEF BD-1 strategic objective "Improve Sustainability of Protected Area Systems" and also responded to the Biological Diversity Convention (CDB). In addition, its components fit within the objectives of the Regional Strategy for the Conservation and Sustainable Use of Biodiversity in Mesoamerica endorsed by the Central American Commission for Environment and Development (CCAD).

The project design intended to emphasize on the first GEF strategic objective concerning biodiversity: Catalyzing Sustainability of Protected Areas. The main reason for choosing exclusively this strategic priority relied in the main purpose of the Project, which was to strengthen the ecological integrity and connectivity of the MBR, taking into account that the reserve represents 75% of the national system. Therefore, the Project was designed to improve management effectiveness in the MBR as an individual PA while simultaneously having a significant impact on the management effectiveness of the national PA system.

5.2.5.2 Analysis of the most relevant stakeholders

The key project stakeholders are listed on Table 8. Generally speaking, MARN lacks the administrative capacity and political interest necessary to execute this type of technical cooperation and to be the project leader. CONAP would have preferred to execute the Project directly, and based on the scheme provided in the Project Document did not assume the desired leadership. The people interviewed from the different institutions involved in the Project recognize that they were affected by the high staff turnover; there were changes of officials like ministers, directors and chiefs, which deprived the Project from the historical knowledge and empowerment that took place at the beginning of its inception, which had a negative impact in their involvement.

CIDSP never operated as planned, or held regular meetings to monitor and evaluate the project, or provided strategic guidelines towards the fulfillment of the expected objectives, targets, outputs, and activities.

Table 8 **Key project stakeholders**

KEY STAKEHOLDER	ROLE	ABILITY TO PERFORM THE ROLE	OWNERSHIP	EXPLANATION
1. MARN	Project Executing Agency and a member of CDISP	P	R	One of the institutions that performs a management role in the MBR and a member of CDISP.
2. CIDSP	Inter-Institutional Commission for the Sustainable Development of Petén (CIDSP), institutionalized by governmental decree to act as an oversight body for PDPRBM, including the GEF Project.	P	P	CIDSP, as a forum to ensure coherence in sectoral policies through regular, informed exchanges between agencies that had jurisdiction on the MBR, would be responsible for inter-institutional coordination on all policy matters related to the project, would be the highest instance of approval of the POA and would oversee the development of the Operations Plan.
3. CONAP[29]	Beneficiary of the Technical Cooperation	P	R	One of the institutions with a management role in the MBR, as manager of the MBR, has a regional office in Santa Elena (Peten). A member of CIDSP. Its operating capacity is limited by an operating budget of about USD 1.78 million per year, of which about 70% is allocated to payroll.
4. MAGA	The Executing Agency of the Peten Development Program financed by IDB (973/OC-GU and 974/OC-GU)	P	P	One of the institutions that performs a management role in the MBR and a member of CDISP. In an area to the south of the MBR and with some specific interventions in selected parks and in the buffer zone. This includes restoration of archaeological sites (Yaxha and Aguateca), sustainable natural resource management, systems for environment-friendly agricultural production and regularization of land titles.
5. INGUAT	A member of CIDSP	P	P	One of the institutions that performs a management role

[29] CONAP is presided over by MARN and has representatives from the Center for Conservation Studies of the USAC (CECON), environmental NGOs, the National Association of Municipalities, INGUAT, and the Ministry of Agriculture, Livestock and Food (MAGA).

KEY STAKEHOLDER	ROLE	ABILITY TO PERFORM THE ROLE	OWNERSHIP	EXPLANATION
				in the MBR and a member of CDISP.
6. MICUDE	A member of CIDSP	P	P	One of the institutions that performs a management role in the MBR and its Institute for Anthropology and History (IDAEH). A member of CIDSP
7. Ministry of Energy and Mining	A member of CIDSP	P	P	One of the institutions that performs a management role in the MBR and a member of CDISP.
8. Secretariat for Execution Coordination of the Presidency	The Government of Guatemala, through SCEP and CIDSP, reached and agreement with the Bank on a strategy for the participatory and inclusive conservation of the MBR.	P	P	This strategy was partly implemented through the PDPCRBM, financed with an IDB loan in the amount of USD 30 million approved in 2006 (1820/OC-GU). The GEF project complemented said program, which intended to address issues in connection with governance and poverty mitigation through conservation measures.

NB: *E= excellent* *G=* good *R= regular* *P= poor.*

The color indicates a performance alert, based on the information provided.

Source: Progress reports and interviews 2014 and 2016.

5.2.6 Effectiveness

Overall, the effectiveness of this Project is rated 3 Moderately Unsatisfactory (MU), because it did not meet the targets in most output indicators and had considerable shortcomings to meet the targets, outputs and activities restructured and described in the PMR.

This section analyzes the fulfillment of the output indicators according to the PMRs 2013 and 2017. From a review of the Project Document (PD) and the PMRs, it can be noticed that some outputs were removed -when the transition form the Logical Framework to the Results Matrix was made- while others stayed and new ones were added.

Thus, the PMRs and the following key were used, in order to facilitate a comparison between the Project Document (i.e. the outputs and targets originally included at the design stage).

- *The (pale blue) color indicates that the information was taken from both PMRs, 2013 and 2017.*
- *The (yellow) color indicates that the information only appears in the PMR 2017 (and not in the PMR 2013).*

In addition, the formats used are the same as those in the original documents, so, for instance, the outputs/targets/activities in the Project Document use the #.lower case format (e.g. 1.a) and those in the PMR use the #.# format (e.g. 1.1).

An effort has been made so that the targets of the Project Document match those of the PMRs, so in the column of indicators - when the targets coincide- there are both the target set in the Project Document (not numbered) and that indicated in the PMR (numbered); when they do not coincide, only those included in the PMRs are shown (colored as already explained).

The indicators of the Project Document which were removed and do not appear in the PMRs have not been taken into account by the evaluator[30] in rating the effectiveness of the Project, but have nevertheless been included in the analysis in order to show the changes between the Logical Framework (of the Project Document) and the Results Matrix (of the PMR).

It should be noted that in the Mid-Term Evaluation very few outputs (barely a 7%) had been completed, as evidenced by the following statement: *"In the 4 components of the GEF project, 70 activities, completely justified and consistent with the diagnosis, were defined, but only five of them got carried out, that is to say, 7% of the outputs were completed." (OTSCORP 2014).*

5.2.6.1 5.2.6.1 Effectiveness of Component 1 outputs/targets

Three output targets (1.4, 1.8 and 1.9) have been met (at 100%), three have not been met (0%), and the other five have been partially met.

The outputs/activities/targets described in the Project Document, which were removed from the Results Matrix and the PMR (Table 9), are the following: 1.a *Creation of the CIAN and Productive projects in the AOP,* and one of the indicators in1.c *Automated process between the One Stop Window of CONAP and CEMEC.*

Of the activities described in the PMR, three have been completed at 100%:

- *1.4 Co-management agreements for the CZ of the MBR (No. of agreements).*
- *1.8 Control posts built and operating (No. of control posts).*
- *1.9 Equipment for the San Miguel COC.*

The other activities have been partially completed (at less than 59%) or where not completed at all (three activities completed at 0%).

Table 9 Fulfillment of the outputs of Component 1 (C1): capacity-building

OUTPUT/ ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
COMPONENT 1 Strengthening the institutional arrangements and the capacity for effective management of biodiversity in the MBR					
1.a Strengthening institutional capabilities for governance of the MBR.	Creation of the CIAN	1		0	0%
	Productive projects in the AOP	75%		0%	0%

[30] That is to say, the effectiveness rating only considered the outputs/indicators of the PMR (which are colored).

OUTPUT/ ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
	1.1 Institutional agreements to support the management of natural resources in the MBR		12	7	58%
1.b Improving and developing new mechanisms for co-management in core zones, biological corridors, community polygons, and other special use areas.	1.2 Forestry concessions with revised and updated contracts	15	7	1	14%
	Co-management model for biological corridors 1.3 Biological corridors identified (No.)	3	4	1	25%
	Co-administration agreements for the CZ 1.4 Updated co-management agreements for the CZ of the MBR (No. of agreements).	4	1	1	100%
	Cooperation agreements facilitating the execution of operative plans in SUZ 1.5 Cooperation agreements in place to implement the operating plans in the SUZ (No of agreements)	13	4	1	25%
1.c Strengthening the operational capacity of the CONAP in the MBR	Community Relations Unit is in operation and functioning 1.6 CONAP Community Relations Unit is in operation and functioning (unit)	1	1	0	0%
	Management plans and operating plans in the CZ 1.7 Updated or draft master management plans for the CZ of the MBR (No of master plans)	7	6	3	50%
	Control and information posts and patrol routs built and operating 1.8 Control posts built and operating (No of control posts)	3	1	1	100%
	An automated process exists between the One Stop Window of CONAP and CEMEC	1			0%

OUTPUT/ ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
	1.9 Equipment for the San Miguel COC.		1	1	100%
1.d Partnerships with the formal education sector in the region for environmental education and skills training.	Departmental environmental education committee 1.10 Departmental environmental education committee re-instituted (unit)	1	1	0	0%
	Families that participated in environmental awareness events in the MBR and its buffer zone 1.11 Households participating in environmental awareness events (No of households)	1,000	100	0	0%

NB: *The (pale blue) color indicates that the information was taken from both PMR 2013 and PMR 2017.*
The (yellow) color indicates that the information only appears in the PMR 2017 (and not in the PMR 2013).
CIAN=High-Level Inter-Institutional Committee PD=Project Document

Source: PD 2008, PMR 2013, PMR 2017 and interviews 2017.

5.2.6.2 Effectiveness of Component 2 outputs

Two targets are above the expected levels (2.1 and 2.6, by 400% and 250%, respectively), one was met at 50%, and the other three were not met (0%).

The outputs/activities/targets described in the Project Document, which were removed and not included in the PRM, are the following (Table 10):

- *2.b Sustainable diversification and marketing initiative is proven financially viable and adopted by community management units.*
- *2.c Community members and/or community and private tourism businesses are trained in aspects of low-impact tourism.*

Of the targets maintained in the PMR, two exceeded their expected levels:

- *2.1 Meteorological stations with equipment and satellite telemetry data transmission services acquired at 400%.*
- *2.6 Producers implementing sustainable agricultural practices in the MUZs of the MBR at 250%.*

Target 2.5 (Community groups participating in the development of tourist circuits (No. of groups)) was met at 50% and the other three were not met (0%).

Table 10 **Fulfillment of the outputs of Component 2 (C2): Fostering the conservation and sustainable use of biodiversity**

OUTPUT/ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
COMPONENT 2 Fostering the conservation and sustainable use of biodiversity in the MBR					
	2.1 Meteorological stations with equipment and satellite telemetry data transmission services acquired		1	4	400%
2.1 Small innovative investments for biodiversity use	(Micro) projects based on new opportunities for sustainable use of biodiversity in multiple use zones (MUZ) and buffer zones (BZ) 2.2 Productive projects implemented in the MUZ (No.)	10	5	0	0%
2.b Diversification of forest products, and training in management aspects in MUZ	Sustainable diversification and marketing initiative is proven financially viable and adopted by community management units	1		0	0%
	Managers of community concessions trained in entrepreneurial and administrative aspects 2.3 Managers of community concessions trained (No.)	As per the needs assessment	16	0	0%
2.c Low-impact nature-based tourism activities in the CZ, BC and MUZ.	Consolidated nature-based tourism circuits linking core zones and biological corridors have minimum infrastructure 2.4 Nature-based tourism circuits in core zones with minimum infrastructure (No.)	2	1	0	0%
	Organized community groups actively participate in the tourist circuits 2.5 Organized community groups actively participate in the tourist circuits (No. of groups)	5	2	1	50%

OUTPUT/ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
	Community members and/or community and private tourism businesses are trained in aspects of low-impact tourism.	100		0	0%
2.d Incentives for sustainable agricultural activities in appropriate areas.	Families implement at least one sustainable agriculture practice in their parcels and/or home gardens in MUZ and SUZ 2.6 Producers implement sustainable agriculture practices in the MUZ of the MBR	100	120	300	250%

NB: *The (pale blue) color indicates that the information was taken from both PMR 2013 and PMR 2017.*
The (yellow) color indicates that the information only appears in the PMR 2017 (and not in the PMR 2013).

Source: PD 2008, PMR 2017 and interviews 2017.

5.2.6.3 Effectiveness of Component 3 outputs

Two output targets exceeded the expected levels (3.2 and 3.3), four have been met at 100% (3.6, 3.7 and 3.11), three have been partially met (3.5, 3.9 and 3.10) and two have not been met (0%).

Table 11 shows that the targets for the following outputs, described in the PMR 2017, have been exceeded:

- *3.2 Hiring of resource rangers for fire prevention and natural resource protection and surveillance (325%).*
- *3.3 Hiring of technical staff to implement the forest fires prevention program and prepare control activities (267%).*

The following targets have been met at 100%:

- *3.1 Evaluation of the effect of forest management on the genetic diversity of mahogany trees and cedars (evaluation)*
- *3.6 CZ of PA and forestry concessions demarcated with land marks on the field (No.)*
- *3.7 PNSL management strengthening.*
- 3.11 Draft operating plan for the MBR (No. of operating plans).

The following targets have been partially met:

- *At 71%, 3.5 Land conflicts reduced (No. of conflicts).*
- *At 50%, 3.9 Legal disputes related to the MBR solved (No. of legal disputes).*
- *At 10%, 3.10 Assessment of the economic value of environmental services completed (No. of assessments).*

The other output targets have not been met at all (0%).

Table 11 **Fulfillment of the outputs of Component 3 (C3): Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR**

OUTPUT/ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
COMPONENT 3 Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR					
	3.1 Evaluation of the effect of forest management on the genetic diversity of mahogany trees and cedars (evaluation)		1	1	100%
	3.2 Fire prevention, protection and surveillance activities conducted at the MBR (No. of resource rangers).		36	117	325%
	3.3 Implementation of the forest fires prevention program and prepare control activities for the MBR (No. of technical staff).		3	8	267%
	3.4 Updated guidelines for technical studies in the declaration of protected areas completed (study)		1	0	0%
3.a Supporting the resolution of land use conflicts in the MBR	Land conflicts in the MBR solved 3.5 Land property conflicts solved (No. of conflicts)	40%	150	107	71%
	Limits of CZ, concessions and community management units demarcated on the maps and on the field 3.6 CZ of the PA and forestry concessions demarcated with land marks on the field (No.)	100%	5	5	100%

OUTPUT/ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
	Studies on land use reassignment inside PNSL boundaries are completed and are being applied in a participatory fashion 3.7 PNSL management strengthened	1	1	1	100%
	National parks and biological corridors have been legally incorporated in the National Land Registry 3.8 National parks and biological corridors have been legally incorporated in the National Land Registry	3	4	0	0%
3.c Support the environmental audit and compliance monitoring performed by judicial officials in the MBR	Strategic law enforcement cases are in process of resolution by the Office of the Public Prosecutor for Environmental Offenses in the Peten Region 3.9 Law enforcement cases related to the MBR solved (No. of law enforcement cases)	4	4	2	50%
3.d Implementing financial mechanisms for the sustainable use and conservation of biodiversity	A document updating the economic value of the Reserve's environmental services and a proposal for PES(PNLT) 3.10 Study on economic value of the environmental services completed (No. of studies)	2	1	1	10%
	Recurrent costs of management activities in the MBR are covered through a combination of national budget and financing mechanisms	75%			0%
	MBR Operating Plan that includes finance mechanisms for at least three core zones 3.11 MBR Draft Operating Plan (No. of operating plans)	1	1	1	100%

NB: *The (pale blue) color indicates that the information was taken from both PMR 2013 and PMR 2017.*
The (yellow) color indicates that the information only appears in the PMR 2017 (and not in the PMR 2013).

Source: PD 2008, PMR 2017 and interviews 2017.

5.2.6.4 Effectiveness of Component 4 outputs

One of the output targets has been met at 100% (4.3), two have been partially met (4.6 at 50% and 4.7 at 10%) and the other four have been not met at all (0%).

The only output completely achieved in this component was 4.3 for the exchange of information (Table 12), output 4.6 regarding the equipment has been met at 50%, and output 4.7 on training has been met at 10%. The other ones have not been achieved (0%).

Table 12 **Fulfillment of the outputs of Component 4 (C4): Strengthen the generation and use of information for (adaptive) management of the MBR**

OUTPUT/ ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
COMPONENT 4 Strengthen the generation and use of information for management of the MBR or generation and use of information for adaptive management of the MBR					
4.b Establishing the monitoring and evaluation system	Monitoring and evaluation system is generating reports on overall status of the MBR 4.1 Baseline for biological monitoring at PNLT established	1	1	0	0%
	Annual results of the monitoring and evaluation system are taken into account in the preparation of the AOP and for making strategic decisions related to adaptive management of the MBR 4.4 Reports on the overall status of the MBR published (No. of publications)	8	5	0	0%
	4.2 Equipment for CONAP		2	0	0%
4.a Consolidating and improving the exchange of information for the management of the MBR.	An inter-institutional agreement for information exchange on the subject of biodiversity and associated resources is operating 4.3 An inter-institutional agreement for information exchange executed	1	1	1	100%
	Monitoring reports on the socioeconomic situation in CZ (PNLT and PNSL)	2		0	0%
4.C Developing a research agenda for	Regional research projects on adaptive	5	5	0	0%

OUTPUT/ ACTIVITY	INDICATORS	TARGET		FULFILLMENT	%
		PD	PMR 2013		
biodiversity conservation.	management, consistent with a locally endorsed research agenda and supported with logistical resources, yield results (theses and dissertations) 4.5 Regional research projects on adaptive management completed (including theses)				
	4.6 Equipment bought for CEMEC and other research centers (research center and equipment)		2	1	50%
	4.7 The staff of CONAP and other agencies trained (No. of people)		100	10	10%

NB: *The (pale blue) color indicates that the information was taken from both PMR 2013 and PMR 2017.*
The (yellow) color indicates that the information only appears in the PMR 2017 (and not in the PMR 2013).

Source: PD 2008, PMR 2017 and interviews 2017.

5.2.7 Efficiency: comparison between physical achievements and budget/execution

Overall, the efficiency of this Project is rated 3 Moderately Unsatisfactory (MU), because it had considerable shortcomings in the allocation of GEF and counterpart funds to meet the objectives, outputs and targets established and described in the PMR.

Table 13 shows the project budget planned for and actually executed, from which it can be noticed that - in line with the changes made when migrating from the Logical Framework to the Results Framework of the effectiveness analysis - the allocation of the GEF funds was modified in relation to the original proposal, with 177% of the funds originally planned for being allocated to the execution of Component 1. As a result of this, the funds for the other components had to be cut as follows: 92% for Component 2, slightly above 50% for Component 3 and 4, and 81% for administrative expenses.

Furthermore, the counterpart budget was also modified, allocating more resources to Components 1 and 3 and drastically cutting the budget for Component 2, to the detriment of the innovative sustainable development projects with local communities.

However, also based on the effectiveness analysis, it can be inferred that many output targets in the PMR (Results Matrix) have not been met (about 50%) and others have been met only partially (see Annex 3). According to the people interviewed, the GEF funds were re-allocated at meetings held with CONAP and MARN based on the needs of the earlier.

Table 13 **Comparison between the budget in the PD and what had been planned for and contracted by the PMEMRBM-Guatemala (as of December 10, 2016)**

OUTPUT	TOTAL BUDGET 2012-2016			EXECUTED UNTIL DECEMBER 10, 2016					
	GEF Grant	IDB Loan (cofinancing)	TOTAL USD	GEF Grant	%	IDB Loan (cofinancing)	%	TOTAL USD	%
1. Strengthening the institutional arrangements and the capacity for effective management of biodiversity in the MBR	1,060,000	1,540,000	2,600,000	1,879,727	177%	3,253,500	211%	5,133,227	197%
2. Fostering the conservation and sustainable use of biodiversity in the MBR	400,000	7,000,000	7,400,000	366,251	92%	273,000	4%	639,251	9%
3. Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR	920,000	1,000,000	1,920,000	466,424	51%	5,302,000	530%	5,768,424	300%
4. Generation and use of information for the adaptive management of the MBR	950,000	0	950,000	501,764	53%	0	N.a.	501,764	53%
5. Other costs	330,000	1,400,000	1,730,000	268,287	81%	425,000	30%	693,287	40%
PROJECT TOTAL	**3,660,000**	**10,940,000**	**14,600,000**	**3,482,453**	95%	**9,253,500**	85%	**12,735,953**	87%

NB: *The color indicates a fulfillment alert, based on the information provided.*

Source: PD 2008, PMR 2017, EU 2017.

5.2.8 Impact

Overall, the impact of this Project is rated 3 Moderately Unsatisfactory (MU), because it failed to meet the target of the PMR impact indicator, but did meet those of the result indicators.

The design included impact indicators (section 5.1.2) which were not measured with the M&E system designed in the Project Document because the Logical Framework was replaced with the Results Matrix, as already explained. Result indicators were also included, most of which were not SMART[31]: they were specific, not easily measurable (although targets were set), hardly achievable, but relevant because they were consistent with the development issues (and, in the vertical logic, with the components and outputs), and even if they were limited to the period of the technical cooperation (TC), they were difficult to achieve.

Table 14 shows the impact indicators of both the original Project Document and the Results Matrix included in the PMR. While the earlier are not colored, the latter are shown in (pale blue).

The impact indicator included in the PMR "*The area covered by forest of the MUZ and CZ of the MBR increases or maintains its levels*", was not achieved, contrary to the results indicators (Table 14), which were certainly achieved and which are discussed below.

1. ***Result indicator "Number of fires (heat points) in the MUZ and CZ of the MBR decreases"***: the number of fires effectively decreased from 2,110 in 2008 to 1,266 the following year, but the target was actually 1,688, so there has been a 200% decrease. While said decrease is not fully attributable to the Project, at least part of it did result from the activities of forest fire prevention, protection and surveillance conducted through the hiring of 117 resource rangers (forest firemen) and eight technicians to support CONAP.
2. ***Result indicator "Sales of forest concessions increases"***: sales of forest concessions increased by one million Quetzales. However, this result may hardly be attributed to the Project, since only a review/update of a forestry concession contract was performed. The increase is mostly the result of activities carried out by ACOFOP.
3. ***Result indicator "Protected areas of the CZ of the MBR registered at CONAP***". While nine PAs were actually registered, this can be attributed to the Project (demarcation and land marks) only to a very little extent.

[31] SMART: specific, measurable, achievable, relevant, and timely.

Table 14 **Fulfillment of impact and result indicators**

IMPACT/RESULT	RESULT INDICATOR	BASELINE (2008)	GOAL	ACTUAL FULFILLMENT	%	COMMENTS
Goal: Contribute to the conservation of regionally and globally significant biodiversity and conservation of ecological processes in the Maya Biosphere Reserve (MBR) while guaranteeing the provision of environmental goods and services that benefit the local population.	Ecological integrity is maintained or improved					As measured by connectivity, area affected by fire and rate of land conversion (baseline 2005: 1,769,261 hectares of natural vegetation (forests and wetlands); 8% area with low connectivity; 18% area burned in 2005 and 10% area converted to agriculture between 1986 and 2004).
	Biodiversity of core zones and biological corridors as measured by Rapid Ecological Assessments is maintained (# of species in the PNLT)					
	The number of families living in the MBR deriving at least 35% of their income from environmentally sustainable productive activities and/or non extractive use of natural resources compatible with the objectives of biodiversity		10%			

IMPACT/RESULT	RESULT INDICATOR	BASELINE (2008)	GOAL	ACTUAL FULFILLMENT	%	COMMENTS
	conservation has increased					
Purpose: To support conservation management and the sustainable use of biodiversity with an emphasis on areas of high biological importance in the MBR, by strengthening institutional, national, and local capacities to optimize management, thus guaranteeing the effective participation of various stakeholders as partners in conservation.	Vegetation cover (in hectares) affected annually by fires is reduced. 1 *Result indicator*: Number of fires (heat points) in the MUZ and CZ of the MBR decreases.	2,110	1,688	1,266	200%	CEMEC - CONAP reports: measurement based on information collected through satellite imagery (heat points)
	Area of the core zones and biological corridors with medium or high connectivity		100%			

IMPACT/RESULT	RESULT INDICATOR	BASELINE (2008)	GOAL	ACTUAL FULFILLMENT	%	COMMENTS
	20% of the recurrent costs for basic operations of two core zones are covered by Special Trust Fund	0	2	0		
	Technical staff of CONAP and its co-administration partners and operational staff (park rangers) receive training to manage the MBR in the core zones, corridors and special use zones		50%			
	Average management effectiveness rating of the core zones based on WWF/World Bank methodology improves to		70%			
Impact indicator: The area covered by forest of the MUZ and CZ of the MBR increases or maintains its levels	Hectares of forest cover in the MUZ and CZ of the MBR	1.701.779[1] BZ = 149,242, CZ= 601.365, MUZ = 714,348, TOTAL 1,464,955[2]	Maintains or increase its levels	Forest data as of 2011: BZ = 112,835 ha, CZ = 564,847 ha, MUZ = 693,120 ha, TOTAL 1,370,802	-6%	CEMEC - CONAP reports: measurement based on information collected through satellite imagery in 2006

IMPACT/RESULT	RESULT INDICATOR	BASELINE (2008)	GOAL	ACTUAL FULFILLMENT	%	COMMENTS
2 Result indicator: Sales of forest concessions increase	2.1 Sales of forest concessions in the MBR increase (Q)	10,000,000	1,000,000	11,000,000	100%	ACOFOP final reports of business plans
3 Result indicator: Protected areas of the CZ of the MBR registered at CONAP	3.1 PA registered at CONAP (%)	0		9	100%	Legal documents obtained form the General Land Registry or Government Property Division of the Ministry of Finance: results matrix agreed with the EA indicated "number of protected areas"

NB: *The color indicates that information obtained from the PMR is included.*

Source: PD 2008, PMR 2017 and interviews 2017.

Based on the interviewees' opinions, among other additional (qualitative) impacts generated by the Project and attributable to the four components are:

- *The possibility to perform surveillance and control activities increased due to the construction of the COC of San Miguel de La Palotada.*
- *It promoted the generation of climatological information through the financing three meteorological stations for the CONAP Monitoring and Evaluation System (CEMEC). In addition, an aerial photography camera was purchased, which also contributed to generating information.*
- *It promoted increased control of the PAs in the MBR, especially as regards forest fires, due to hiring technical staff, resource rangers and forest firemen.*

5.2.9 Sustainability

Overall, the sustainability of this Project is rated 2 Moderately Unlikely (MU) because there are significant risks to the sustainability of its activities due to the absence of a systematized effort to fulfill most of the outputs in the four components designed to this end in the Project Document.

Contributing to the long-term conservation and sustainable use of biodiversity in the MBR was one of the main objectives of the Project. In order for the project results to remain sustainable once the Project concludes, the strategies described in the following sections were designed.

5.2.9.1 Social and institutional sustainability

In order to achieve social and institutional sustainability, the TC intended to implement the following strategies (IDB 2008), especially through the implementation of the activities designed under components 1 (capacity building) and 4 (generation and use of information):

- *The emphasis placed on strengthening CONAP and its co-management arrangements with its existing and new partners to ensure greater presence in the MBR, including improved community relations.*
- *Implementation of a genuine process of citizen participation and decentralization building on the practical experience of the forestry concessions.*
- *Formalization of the CISDP as a proven forum to discuss and coordinate sectoral policies and actions in the context of the Project, including bringing to the forefront matters related to oil production activities, cattle raising, tourism and other economic activities of the MBR.*
- *The installed capacity of USEC/CEMEC as a center operating from Peten dedicated to the monitoring and evaluation of environmental indicators.*
- *Also with the creation of the CONAP Monitoring and Evaluation Unit, which contributes to the timely incorporation of the practical experience gained in biodiversity conservation and management, thus enabling replication to other areas within the national system of protected areas and contributing to overall institutional viability.*

The strengthening of CONAP was only minor, for it was limited only to the PA management plans and the reviewed concession contracts. There was no comprehensive process of citizen participation, and the CIDSP was not formalized, though the Project did provide relatively low support to CEMEC through the purchase of meteorological stations and an aerial photography camera.

5.2.9.2 Ecological sustainability

The ecological sustainability of this Project was to be achieved through the implementation of the four components already described. The Project aimed at generating the following benefits:

- *At the global, national and local levels, contributing to the maintenance of the Reserve's ecological functions, safeguarding a diversity of forest and associated ecosystems, of which some are unique and unfragmented, and protecting plant and animal species including significant breeding populations of mammals and birds and several threatened, endangered and endemic species.*
- *Globally, the Project is expected to contribute to the ecological integrity of the Selva Maya, the most extensive tropical broadleaf forest remaining in Central America, including carbon sequestration and improved management of two Ramsar sites, one of which encompasses the greatest concentration of freshwater wetlands in Mesoamerica.*
- *As for regional objectives, the Project sought to enhance the connectivity and promote replication of best practices to other portions of the Selva Maya in Mexico and Belize as well the Mesoamerican Biological Corridor.*
- *Nationally, the Project sought to consolidate the SIGAP by improving and expanding co-management models to a network of core zones and biological corridors that encompass 75% of the national protected area system, by strengthening key capacities for management effectiveness including consensus building, conflict management, monitoring and evaluation and by leveraging a permanent stream of revenues that can be used for managing the Reserve as a system.*
- *Locally, the Project sought to promote alternative productive activities compatible with the biodiversity conservation objectives of the Reserve, thereby reducing resource use conflicts. The clarification of the legal status of various zones of the MBR, which would contribute to enhanced land use security.*

However, most of the outputs and goals of the components were not fulfilled and the impacts are only limited to those described in section 5.2.8, of which the only sustainable one is that related to the purchase of meteorological stations and an aerial photography camera, which are maintained by CEMEC and will generate information that will benefit biodiversity.

5.2.9.3 Financial sustainability

The Project sought to be cost-effective based on the strategy applied in its design, since it was designed around entities already operating in the MBR such as CONAP Monitoring and Evaluation Unit and CEMEC (USEC/CEMEC), and it sought to optimize the allocation of human resources through co-management. In addition, the Project sought to share its administration costs based on an execution scheme that is fully integrated with the IDB loan for the PDPRBM. However, due to the absence of government policies in this field and the instability derived from abrupt changes introduced by political decision-makers and technical staff of the four administrations that took over during the Project term, public institutions are not likely to have the budget necessary to continue with the initiatives promoted by the GEF Project as planned in the Project Document, and thus financial sustainability does not seem feasible.

6 LESSONS LEARNED, CONCLUSIONS AND RECOMMENDATIONS

This section is structured around the lessons learned, based on which conclusions are derived and recommendations are suggested. The lessons learned, conclusions and recommendations cover the dimensions of design and relevance, effectiveness and efficiency, impact and sustainability.

6.1 On the design and relevance

1 Relationship with the Government:

- *LL:* Engaging the government is critical to render long-term objectives sustainable and legitimate.
- *Conclusion:* Involving the government in development projects like this one provides legitimacy, facilitates the securing of supplementary funds and promotes the sustainability of the objectives and goals sought; however, its execution capacity is very low and staff turnover very high.
- *Recommendation:* Project implementation should be delegated to private autonomous entities, like NGOs and research institutions, among others. In addition, projects should contemplate sufficient resources to conduct a process to involve and convince the permanent authorities of the government institution(s) which are most relevant for the objectives and goals set for the project. Also, project activities should be reflected in the institutional AOPs - in this case of MADS and CONAP, among others.

2 Relevance:

- *LL:* If a Project is relevant for the Government, generating ownership is easier and its objectives can be achieved more effectively and efficiently.
- *Conclusion:* This Project is highly relevant as a government policy in terms of the development issues identified, the national policies, the goals, the country's existing regulations, and the objectives and goals of GEF, among others.
- *Recommendation:* Political support should be sought - first from MARN and CONAP - to design policies and regulations that contribute to achieving the expected goals

3 Risks and assumptions:

- *LL:* The materialization of the risks and assumptions of the logical framework influences the achievement of the project's outputs and indicators. In addition, due to the possibility that the context in the country may change (in projects that last several years), it is necessary to include an adaptive management scheme.
- *Conclusion:* Risks were properly identified in the Project Document - although further analysis was necessary -, but they were not used as a management tool.
- *Recommendation:* Risk analysis in connection with the fulfillment of the project objectives and components should be implemented as a planning instrument,

which should be regularly updated and which helps mitigate or overcome any obstacles the Project may come across.

4 Project management:

- *LL:* Procurement processes and financial reporting for this type of projects are complex.
- *Conclusion:* Based feedback obtained from the interviews, financial processes in general require experienced staff or staff trained by the Implementing Agency in order to comply with their administrative requirements.
- *Recommendation:* More training and support to the administrative officers in charge of the Project's financial processes should be included by the IA in its Operations Plan.

6.2 On effectiveness and efficiency

5 Political instability:

- *LL:* Implementing Agencies (IA) should be strict in terms of the performance of the agreements and commitments made, especially at times when social, political or economic conditions are adverse (see section 5.2.2), as is the case of this Project.
- *Conclusion:* A very critical political situation prevailed during the execution of this Project exercising great pressure on financial resources. On top of this, the death of the GEF Project Coordinator (Fernando Miyares) was also a problem as no replacement was hired. A critical element in any project is that the government, IDB and GEF honor their commitments (related to the activities, outputs, targets and indicators, among others, of the Project Document or the Results Matrix), for this can reduce the possibility of political interference and institutional competition (in this case mainly of MARN and CONAP) as regards the destination and use of financial resources.
- *Recommendation:* The IA should perform permanent monitoring and take firm decisions to ensure that the GEF resources are properly allocated notwithstanding the current conditions in the country (at political, social or economic level, among others) and are used in the most efficient manner and with a view to achieving what has been planned for in the Project Document or the Results Matrix.

6 Forestry concessions:

- *LL:* The study "*Assessment of the Effect of Forestry Management on the genetic diversity of mahogany trees and ceders*" points at the possibility that the forest concessions with community participation may maintain the genetic biodiversity of these two species just like the control PAs do.
- *Conclusion:* Community forestry concessions can be a good way to diminish deforestation (illegal logging) and illegal extraction of other flora and fauna in Protected Areas - not to mention their positive effect on the communities.
- *Recommendation:* Given that this study has drawn only partial conclusions - due to problems with the collection of samples - it is necessary to carry on with it and support it as necessary for it to conclude. In addition, it is essential to provide direct

support to the development of community concessions due to the high level of poverty and social risks.

7 Protected Areas management plans:

- *LL:* Management plans are effective in promoting PA management and empowering stakeholders.
- *Conclusion:* The GEF Project strengthened the management of the Maya Biosphere Reserve by formulating the following PA master management plans: Maya Biosphere Reserve, Yaxha-Nakum-Naranjo National Park and Cahui.
- *Recommendation:* It is necessary to carry on developing Master Management Plans in the MBR in cooperation with the different stakeholders and with an emphasis on community participation.

8 Civil society organizations:

- *LL:* NGOs are well prepared to develop complex projects at technical and administrative level if the IA works closely with them
- *Conclusion:* MARN and CONAP proved to have very little capacity to effectively use scarce resources to achieve environmental objectives with global, regional, national and local benefits.
- *Recommendation:* Civil society organizations selected to execute relevant technical assistance projects should have proven experience and reputation and receive continuous support from the IA.

9 Participation:

- *LL:* A comprehensive communication process involving all key stakeholders is critical if we are to implement effective planning and increase the possibility for this type of projects to achieve significant impacts
- *Conclusion:* Having an effective form of communication in place facilitates achieving the objectives and goals set for the projects and promotes transparency.
- *Recommendation:* Projects require a communications strategy and financial resources - as part of their budget - in order to create synergies and promote transparency.

10 ***Synergies with other projects and initiatives:***

- *LL:* Creating synergies with other projects and initiatives is critical to achieve and exceed the expected objectives and goals.
- *Conclusion:* Synergies can be created and "scarce resources" can be used more efficiently through the identification of initiatives - which are consistent with the goals set for the project - which are already underway and can be completed and/or scaled up.
- *Recommendation:* A strategy for creating synergies with other projects and initiatives should be developed, so it is therefore necessary to map out and design a coordination structure which ensures the continuation of the achievement of objectives.

11 ***Counterpart funds:***

- *LL:* The securing of co-financing (especially from private sources) or additional resources for GEF projects is a challenge that can be overcome but which requires proper handling
- *Conclusion:* The IDB/GEF projects provide a good opportunity to leverage resources, since they inspire confidence and credibility, and create an atmosphere of transparency and safety.
- *Recommendation:* The Project design should contemplate the allocation of time and resources to the securing of co-financing, especially from private sources.

6.3 On the impact and sustainability

12 ***Environmental impact and sustainability:***

- *LL:* Ecological sustainability depends not only on the project activities; it is important to create spaces for dialog to foster natural resource conservation
- *Conclusion:* The ecological sustainability largely depends on knowing the relevant resource and on the ownership of the project by the target community and stakeholders, along with government support.
- *Recommendation:* It is of utmost importance to promote participation processes, which should be refined during the implementation of the strategy.

13 ***Gender and youth-related considerations:***

- *LL:* The strategy for biodiversity conservation and sustainable use should contemplate the participation of and effect on women and young people who are part of the relevant stakeholders
- *Conclusion:* In many development projects, communities carry out activities (training courses, generation of jobs, awareness raising, among others) where - sometimes due to the nature of the project - the beneficiaries are adult men, and which do not foster the participation of women and young people.
- *Recommendation:* It is necessary to improve communication in order to reach the women and young people in the communities more efficiently.

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8 ANNEXES

Annex 1:

INTERVIEW QUESTIONNAIRE

TE Improvement of Management Effectiveness of the MBR

Person interviewed (name, contact details): _____

Date of interview: _____

Interview method (telephone, face-to-face, etc.): _____

INTRODUCTION
IDB is conducting the TE of the project named Improvement of Management Effectiveness of the Maya Biosphere Reserve. The idea is to make a critical evaluation of the project's performance providing a comprehensive and systematic analysis from the design of the project to its implementation and the generation of outputs and outcomes, and potential impacts.
What was your role in the development of the project?
I. RELEVANCE
1. How consistent is the project with the main objectives of the GEF focal area and with the environmental and development priorities at the local, regional, and national level?
2. Were the problems to be addressed properly identified from the beginning? Have the design and the implementation of the project been in line with the country's reality and existing capacities? Please, explain.
3. Have the problems addressed by the project improved or worsened?
4. Has there been consistency between the needs of stakeholders and those of IDB-GEF? And between the internal logic and the expected outputs/outcomes? And between the design and its implementation approach?
5. Thinking about the project execution, what adjustments to the original plan have been necessary (at the technical, financial, economic and institutional levels) and what were the reasons for those adjustments made to guarantee the achievement of results? Or, have relevant adjustments been made to keep the project relevant?
6. Any lessons learned?
II. Effectiveness
7. What project components/outputs have been completed/achieved? What was the baseline? Planned? Which outputs have been fully achieved? Which ones have been partially achieved? Which ones have not been achieved?

8. Do the indicators properly describe the progress of the outputs expected and planned for achieving an effective management of the MBR? Any lessons learned?
9. What have been the main risks (and assumptions) which affected the effective development of the project? Were they properly identified? Have they been mitigated? How? Any lessons learned?
10. Have links with institutions or organizations been fostered?
11. What other non-planned achievements has the project had? Strengths and weaknesses (OAA)?
12. Now that the project execution has ended, looking back, what would you have done differently? What went well and didn't went well?
13. With a view to future agreements, what learnings can you draw from this project execution?
III. EFFICIENCY
14. Have the actual expenses for each component/activity/output been consistent with the estimations made in the budget and have they been enough? Have adjustments (to terms, resources, etc.) been necessary?
15. How adequate was the time allocated to the execution of each output/component?
16. What key problems have arouse? Strengths and weaknesses of the financial execution (OAA)?
17. If you had more economic resources for the project right now, what would you do?
18. How could the project have been executed more efficiently? Any lessons learned?
IV. SUSTAINABILITY
19. Is there a sustainability strategy? What are the key activities? How will they be financed?
20. Have the investments made been sustainable?
21. Have the outputs/outcomes or benefits of the project been sustainable up to now?
22. Do you think the project will be sustainable? If yes, what factors do you think have contributed to its sustainability? From a technical and institutional point of view? Why?
23. What are the weaknesses of the project?

24. Who are the beneficiaries, partners and local stakeholders of the project? How many are they? Have they taken ownership of the project? What commitments have they assumed? Have they cooperated? How have they complemented each other? What activities have been assumed by the counterpart or other stakeholders?
25. 25. Is there cooperation and complementarity with other projects or initiatives in Guatemala or worldwide? What commitments have they assumed? Have they cooperated? How have they complemented each other? Are there any value-added outputs?
26. What do you think are the key stakeholders to guarantee the continuation and/or sustainability of the outcomes/benefits of the project? What are the key activities to strengthen the EA?
27. What are the main challenges to the sustainability of the project? Have they been addressed? What potential measures could be taken? Any lessons learned?
V. MONITORING AND EVALUATION
28. What instruments have been used to monitor and evaluate the project? (Mid-term and Final Reports, Field Visits, PMR/PCR, Evaluation Reports, etc.). What indicators have been used?
29. How good was the supervision? What could be improved?
30. Has a results-based management approach been used? Please, explain.
31. How often were they applied? Any lessons learned?
VI. IMPACT
32. What innovative experiences, processes, methodologies or services have come up or have been adopted? Have they been successful? What activities have fostered innovation?
33. What are the impacts or potential impacts of the project (environment, level of income, socioeconomic matters)?
34. Has the project contributed to obtain any unforeseen impact?
35. How can the project build upon its successes and learn from weaknesses? Lessons learned? Any lessons learned?

Annex 2:

FIELDWORK AGENDA AND PEOPLE AND ORGANIZATIONS INTERVIEWED

Table 15 **Fieldwork agenda and people and organizations interviewed**

TIME	MONDAY 13	TUESDAY 14	WEDNESDAY 15	THURSDAY 16	FRIDAY 17
8-9 am	Prior to the mission to Guatemala, an interview via Skype was made to: Juan de Dios Mattos Denis Corrales, Claudia Aguirre and Elsa Chang. Arrival in Guatemala Suites Reforma, Av. Reforma 12-51, Zona 10. Tel 2383 6400, mobile 5838 5022		Departure to Peten, arrival at 7:06 am Emilio Mattos AMPI Meeting with Salvador López 41052002	Emy Díaz, former Vice- Minister MARN 8 am Skype	Interview with Jorge Ruiz via Skype
9-10 am	Trip to IDB and meeting with Claudia Aguirre		Alma Polanco, Director CONAP Peten Teresita Chinchilla, ACOFOP	Johnny Toledo 9 am IDB Coordinator Climate Change-Resilient Productive Landscapes Project MARN-UNDP	
10-11 am		Minor García, Under-Secretariat CONAP Andrea Fernández, International Cooperation Director Sammy Palacios, Guatemalan PA System	Visit to La Palotada COC	10:00 am Sonia Mendoza Program Terminal Evaluation	
11-12 am				Manfredo Corado	
12-2 pm				Luis Ferraté	
2-3 pm	Francisco Moscoso Ronald García Mario Alfaro Carlos Echeverría Luisa Fernanda del Valle	Margarita Palmieri, Research Director, Universidad del Valle	Fernando Baldizón, Henner Reyes, Alan González, Fernando Palomo, CONAP-Peten	Johnny Ayendi Toledo	
3-4 pm			Rosa María Chan Casona del Lago Hotel, close to the bridge to Isla de Flores	Eduardo Cofiño, former Director of the EU	

TIME	MONDAY 13	TUESDAY 14	WEDNESDAY 15	THURSDAY 16	FRIDAY 17
4-5 pm		Manfredo Corado	Rosa María Chan Guzmán, Archaeologist Peten Foundation,		
5-6 pm	Carolina Aguilar IDB		Return to Guatemala City 8:46 pm	Departure from Guatemala	

LIST OF POTENTIAL PEOPLE TO BE INTERVIEWED

IDB Focal Point Claudia Aguirre

1. **Francisco Moscoso**, Executive Director UCP/MARN, PDPCRBM

Also the following people from the PCU/MARN, PDPCRBM:

- Ronald García, Works Physical Progress assistant,
- Mario Alfaro, Administrative Director of the Program, Carlos Echeverría, Legal Advisor of the Program,

2. Luisa Fernanda del Valle, Financial Director, **Carolina Aguilar.** IDB Procurement Consultant, PCU, PDPCRBM.

3. **Margarita Palmieri**. Research Director, Universidad del Valle de Guatemala.

4. **Elsa Chang.** Social Consultant VPS/ESG, IDB.

5. **Denis Corrales.** Environmental Consultant VPS/ESG, IDB.

6. **Minor Garcia,** Under-Secretariat CONAP, Andrea Fernández, International Cooperation Director, Sammy Palacios, Guatemalan PA System

7. **Jorge Alberto Ruiz Ordoñez, Jorge Ruiz.**

8. **Johnny Ayendi Toledo.**

9. **Manfredo Corado.**

10. **Teresita Chinchilla.**

11. **Prudencio Rodríguez Menéndez,** Former Technical Director, PDPCRBM**.**

12. **Rosa María Chan Guzmán,** Archaeologist, Peten Foundation.

13. **Salvador López,** Former Director of CONAP in Peten.

14. **Alfonso Alonso**, Vice-Minister of Environment and Natural Resources.

15. **Mr. Guido Araujo**.

16. **Luis Ferrate.**

17. **Emmy Díaz**.

18. **Maria Elena Molina**.

19. **Rosa Maria Chan**.

20. **Jorge Samayoa**, Technical Expert on Natural and Cultural Heritage at INGUAT.

21. Salvador López.

Annex 3:

OUTPUTS PLANNED AND GENERATED VS. BUDGET PLANNED AND EXECUTED (AS OF DECEMBER 10, 2016)

Table 16 **Outputs planned and generated vs. budget planned and executed (as of December 10, 2016)**

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
1 Strengthening the institutional arrangements and the capacity for effective management in the MBR									
1.1 Institutional agreements to support the management of natural resources in the MBR	P			7	5				12
	A			7					7
	P			15,000	13,000				25,000
	A			12,000					12,000
1.2 Revised forestry concession contracts (no. of contracts)	P			8	4				7
	A			1					1
	P			20,000	20,000				35,000
	A			15,000					15,000
1.3 Biological corridors identified (no. of biological corridors)	P			2	1				4
	A			1					1
	P			10,000	8,000				20,000
	A			12,000					12,000
1.4 Co-management agreements for the CZ of the MBR (No. of agreements).	P				1				1
	A			1					1
	P				1,000				5,000
	A			4,000					4,000
1.5 Cooperation agreements facilitating the execution of operative plans in SUZ (No. of agreements)	P				1				4
	A					1			1
	P				12,000				24,000
	A			12,000					12,000
1.6 CONAP community-relations unit operational (unit)	P				1				1
	A								0
	P			20,000	25,000				50,000
	A			25,000					25,000
1.7 Updated or draft master management plans for the CZ of the MBR (No. of master plans)	P			2	2	4	1		6
	A			0		2	1		3
	P			250,000	180,000	527,000	125,000		249,774

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
	A			14,974		109,800			124,774
1.8 Control posts built and operating (No. of control posts).	P				1		1		1
	A				1		0		1
	P			450,000	74,000				599,850
	A			525,850	1,113,000	15,541	20,562		1,674,953
1.9 Equipment for the San Miguel COC (No.)	P					1			1
	A					1			1
	P					15,600			15,600
	A								0
1.10 Department Committee on Environmental Education reestablished	P				1				1
	A								0
	P			10,000	10,000				10,000
	A								0
1.11 Households participating in environmental sensitization activities (No. of households)	P				100				100
	A								0
	P			10,000	20,000				20,000
	A								0
TOTAL BUDGET FOR COMPONENT 1	***P***			***785,000***	***363,000***	***542,600***	***125,000***	***0***	***1,054,224***
	A			***620,824***	***1,113,000***	***125,341***	***20,562***	***0***	***1,879,727***
2. Fostering the conservation and sustainable use of biodiversity in the MBR									
2.1 Meteorological stations with equipment and satellite telemetry data transmission services acquired (No. of stations with equipment)	P					1			1
	A					4			4
	P					41,250			41,250
	A					241,469			241,469
2.2 Productive projects implemented in the MUZ (No.)	P				1		1		5
	A				3				3
	P				100,000				100,000
	A								0
	P			6	4				16

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
2.3 Community forestry concession managers trained (No. of managers)	A			0					0
	P			20,000	20,000				38,000
	A			18,000					18,000
2.4 Eco-tourism circuits in the CZ with infrastructure (No.)	P				1		1		1
	A								0
	P				90,000				180,132
	A			90,132					90,132
2.5 Community groups participating in the development of touristic circuits (No. of groups)	P				1		1		2
	A						1		1
	P				20,000				20,000
	A								0
2.6 Producers implementing sustainable agricultural practices in the MUZs of the MBR (No.)	P				60		60		120
	A						300		300
	P			5,000	25,000				25,000
	A					16,650			16,650
TOTAL BUDGET FOR COMPONENT 2	***P***			***25,000***	***255,000***	***41,250***	***0***	***0***	***404,382***
	A			***108,132***	***0***	***258,119***	***0***	***0***	***366,251***
3 Supporting the formulation and implementation of policies, standards, and other instruments for managing the MBR									
3.1 Evaluation of the effect of forest management on the genetic diversity of mahogany trees and cedars (No. of studies)	P						1		1
	A							1	1
	P						130,000		130,000
	A						12,883	38,814	51,697
3.2 Fire prevention, protection and surveillance activities conducted at the MBR (No. of resource rangers).	P					36	14		36
	A					22	24	71	117
	P					138,000	212,000		212,000
	A						88,158	71,203	159,361
3.3 Implementation of the forest fires prevention program and	P						2		3
	A					1	0	7	8

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
prepare control activities for the MBR (No. of technical staff).	P						24,000		24,000
	A							14,264	14,264
3.4 Updated guidelines for technical studies in the declaration of protected areas completed (study)	P					1			1
	A								0
	P						25,000		25,000
	A					0	0	0	0
3.5 Land conflicts reduced (No. of conflicts)	P			100	120				150
	A			107					107
	P			25,000	50,000				61,364
	A			11,364		33,694			45,058
3.6 CZ of PA and forestry concessions demarcated with land marks on the field (No. of PA)	P			1	3				5
	A			5					5
	P			30,000	35,000				140,000
	A			105,000					105,000
3.7 PNSL management strengthening	P			1	1				1
	A			1	0				1
	P			200,000	165,000				207,000
	A			42,000					42,000
3.8 NP and biological corridors have been legally incorporated in the National Land Registry (No.)	P			1	2				4
	A								0
	P			25,000	25,000				25,000
	A								0
3.9 Legal disputes related to the MBR solved (No. of legal disputes).	P			2	2				4
	A			2					2
	P			30,000	70,000				97,545
	A			27,545					27,545
3.10 Assessment of the economic value of environmental services completed (No. of assessments)	P				1				1
	A			1					1
	P			25,000	7,000				28,500

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
	A			21,500					21,500
3.11 Draft operating plan for the MBR (No. of operating plans).	P				1				1
	A				0	1			1
	P			80,000	86,000		192,750		192,750
	A			0					0
TOTAL BUDGET FOR COMPONENT 3	***P***			***415,000***	***438,000***	***138,000***	***583,750***	***0***	***1,143,159***
	A			***207,409***	***0***	***33,694***	***101,041***	***124,281***	***466,424***
4 Generation and use of information for the adaptive management of the MBR									
4.1 Baseline for the biological monitoring of Laguna de Tigre National Park established (No. of studies)	P						1		1
	A								0
	P						100,000		100,000
	A								0
4.2 Equipment for CONAP	P						2		2
	A						0		0
	P						115,300		115,300
	A						190,869		190,869
4.3 Inter-institutional arrangement for the exchange of information signed (No. of arrangements)	P				1				1
	A			1					1
	P				15,000				71,163
	A			56,163					56,163
4.4 Reports on the general conditions of the MBR published (No. of publications)	P				3		3		5
	A								0
	P				30,000				30,000
	A								0
4.5 Regional research projects on adaptive management completed (including theses) (No. of studies)	P			2	2				5
	A								0
	P			50,000	100,000				100,000
	A								0
	P			1	1				2

OUTPUT		2010	2011	2012	2013	2014	2015	2016	TOTAL
4.6 Equipment bought for CEMEC and other research centers (No. of research centers and equipment)	A			1					1
	P			350,000	118,000		41,246		273,478
	A			232,232					232,232
4.7 The staff of CONAP and other agencies trained (No. of people)	P			20	50				100
	A			10					10
	P			20,000	50,000				72,500
	A			22,500					22,500
TOTAL BUDGET FOR COMPONENT 4	***P***			***420,000***	***313,000***	***0***	***256,546***	***0***	***762,441***
	A			***310,895***	***0***	***0***	***190,869***	***0***	***501,764***
5 Administration									
5.1 Management, monitoring and evaluation	P			1	1				2
	A			1					1
	P			150,000	100,000				235,019
	A			135,019			67,245	66,024	268,287
TOTAL COST									
	P			1,795,000	1,469,000	721,850	965,296	0	3,599,224
	A			1,382,278	1,113,000	417,155	379,715	190,305	3,482,453

NB: *The color indicates an alert in the achievement of the target for outputs which are essential for the proper performance of the project, based on the comparison between outputs and budget execution. A= Actual P= Planned*

Source: Final PMR 2017.