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The World Bank

Report No: ICR00003138

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(TF-90274)

ON A

GRANT FROM THE

GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF US$ 10.0 MILLION

TO THE

FUNDAÇÃO LUIS EDUARDO MAGALHÃES

FOR A

CAATINGA CONSERVATION AND MANAGEMENT PROJECT - *MATA BRANCA*

June 20, 2014

Sustainable Development Department
Brazil Country Management Unit
Latin America and the Caribbean Region

CURRENCY EQUIVALENTS

Exchange Rate Effective: September 2007 (Effectiveness Date)
1US$ = R$ 1.9031
June 2011 (Midterm Review): 1 US$ = R$ 1.5960
October 2013 (Closing Date): 1 US$ = R$ 2.2026

FISCAL YEAR

(January 1 – December 31)

ABBREVIATIONS AND ACRONYMS

BOP	Beginning of Project
CAR	*Companhia de Desenvolvimento e Ação Regional* (State of Bahia Company for Development and Regional Action)
CAS	Country Assistance Strategy
CBD	Convention on Biological Diversity
CONPAM	*Conselho de Políticas e Gestão do Meio Ambiente* (Ceará State's Council for the Environmental Policies and Management)
DO	Development Objective
EOP	End of Project
FLEM	*Fundação Luis Eduardo Magalhães* (Luis Eduardo Magalhães Foundation)
GA	Grant Agreement
GDP	Gross Domestic Product
GEF	Global Environment Facility
IEM	Integrated Ecosystem Management
IFAD	International Fund for Agricultural Development
INCRA	*Instituto Nacional de Colonização e Reforma Agrária* (Brazilian Institute for Colonization and Agrarian Reform)
INEMA	*Instituto do Meio Ambiente e Recursos Hídricos* (State of Bahia's Institute for the Environment and Water Resources)
IOI	Intermediate Outcome Indicator
ISR	Implementation Status and Results Report
M&E	Monitoring and Evaluation
MDA	Brazilian Ministry for Agrarian Development
MMA	Brazilian Ministry for the Environment
MTR	Midterm Review
PA	Protected Areas
PAD	Project Appraisal Document
PDO	Project Development Objective
PROBIO	*Projeto de Conservação e Utilização Sustentável da Diversidade Biológica Brasileira* (Project for the Conservation and Sustainable Use of Brazilian Biological Diversity)
RPAP	Rural Poverty Alleviation Project

RPPN	*Reserva Particular do Patrimônio Natural* (Private Natural Heritage Reserve)
RPRP	Rural Poverty Reduction Project
SEDIR	*Secretaria de Desenvolvimento e Integração Regional* (State of Bahia's Secretariat of Development and Regional Integration)
SEMA	*Secretaria do Meio Ambiente do Estado da Bahia* (State of Bahia Secretariat for the Environment)
SEMACE	*Superintendência Estadual do Meio Ambiente do Estado do Ceará* (State of Ceará's Superintendency for the Environment)
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Program
UNESCO	United Nations Educational, Scientific and Cultural

Vice President:	Jorge Familiar
Country Director:	Deborah L. Wetzel
Sector Director:	Ede Jorge Ijjász-Vásquez
Sector Manager:	Emilia Battaglini
Project Team Leader:	Bernadete Lange
ICR Team Leader:	Bernadete Lange and Alberto Costa

BRAZIL
CAATINGA CONSERVATION AND MANAGEMENT PROJECT

CONTENTS

A. Basic Information

Country:	Brazil	Project Name:	Caatinga Conservation and Management - Mata Branca - (GEF)
Project ID:	P070867	L/C/TF Number(s):	TF-90274
ICR Date:	06/20/2014	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	BRAZIL, CEARA, BAHIA STATE GOV.
Original Total Commitment:	USD 10.00M	Disbursed Amount:	USD 9.82M
Revised Amount:	USD 9.82M		
Environmental Category: B		**Global Focal Area: M**	

Implementing Agencies:

Fundacao Luiz Eduardo Magalhaes
Companhia de Desenvolvimeto e Acao Regional - BA
Conselho de Politicas e Gestão do Meio Ambiente - CE
Secretaria de Desenvolvimento e Integração Regional - BA

Cofinanciers and Other External Partners:

B. Key Dates

Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	06/14/2004	Effectiveness:	09/27/2007	09/25/2007
Appraisal:	04/03/2007	Restructuring(s):		06/01/2012
Approval:	06/26/2007	Mid-term Review:	11/22/2010	11/30/2010
		Closing:	10/31/2012	10/31/2013

C. Ratings Summary

C.1 Performance Rating by ICR

Outcomes:	Moderately Satisfactory
Risk to Global Environment Outcome	Substantial
Bank Performance:	Moderately Unsatisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance

Bank	Ratings	Borrower	Ratings
Quality at Entry:	Unsatisfactory	Government:	Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately Unsatisfactory	**Overall Borrower Performance:**	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	**Indicators**	**QAG Assessments (if any)**	**Rating**
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA):	None
GEO rating before Closing/Inactive status	Moderately Satisfactory		

D. Sector and Theme Codes		
	Original	**Actual**
Sector Code (as % of total Bank financing)		
Agricultural extension and research	7	7
General agriculture, fishing and forestry sector	15	15
General water, sanitation and flood protection sector	16	16
Other social services	5	5
Sub-national government administration	57	57
Theme Code (as % of total Bank financing)		
Biodiversity	25	25
Environmental policies and institutions	25	25
Land administration and management	24	24
Other rural development	13	13
Participation and civic engagement	13	13

E. Bank Staff		
Positions	**At ICR**	**At Approval**
Vice President:	Hasan A. Tuluy	Pamela Cox
Country Director:	Deborah L. Wetzel	John Briscoe
Sector Manager:	Emilia Battaglini	Abel Mejia
Project Team Leader:	Maria Bernadete Ribas Lange	Maria-Valeria Pena
ICR Team Leader:	Maria Bernadete Ribas Lange and Alberto Costa	
ICR Primary Author:	Michael Bliemsrieder	

F. Results Framework Analysis

Global Environment Objectives (GEO) and Key Indicators(as approved)

The project's global environmental objective and its development objective are the same: to contribute to the preservation, conservation, and sustainable management of the biodiversity of the Caatinga Biome in the Project States, while improving the quality of life of its inhabitants, through the introduction of sustainable development practices[1].

Revised Global Environment Objectives (as approved by original approving authority) and Key Indicators and reasons/justifications

Not applicable

(a) GEO Indicator(s)[2]

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Number of state or municipal sectorial policies or plans developed and adopted by or in the Project States in which IEM and biodiversity considerations are mainstreamed.			
Value (quantitative or Qualitative)	0	6	6	13
Date achieved	12/19/2007	10/31/2012	10/31/2013	10/31/2013
Comments (incl. % achievement)	217%			
Indicator 2 :	Number of protected areas consolidated with improved management effectiveness compared to baseline (SP1 Tracking Tool).			
Value (quantitative or Qualitative)	0	6	6	10
Date achieved	12/19/2007	10/31/2012	10/31/2013	10/31/2013
Comments (incl. % achievement)	176%			
Indicator 3 :	Number of protected areas created by the State of Bahia in biodiversity priority areas			
Value (quantitative or Qualitative)	0	2	2	1.5
Date achieved	12/19/2007	10/31/2012	10/31/2013	10/31/2013
Comments	75%			

[1] The PDO in the PAD states slightly differently: to contribute to the preservation, conservation, and sustainable management of the biodiversity of the Caatinga in the states of Bahia and Ceará, while improving the quality of life of its inhabitants, through the introduction of sustainable development practices. For the purpose of this ICR, it is used the GA version.

[2] The PDO indicators in the PAD states differently. For the purpose of this ICR, it is used the GA version.

(incl. % achievement)				
Indicator 4 :	Number of RPPNs established by the State of Ceará			
Value (quantitative or Qualitative)	0	2	2	5
Date achieved	12/19/2007	10/31/2013	10/31/2013	10/31/2013
Comments (incl. % achievement)	250%			
Indicator 5 :	Percentage of degraded lands rehabilitated under the Project when compared to specific baseline referred to in Operational Manual			
Value (quantitative or Qualitative)	to be determined	20%	20%	8%
Date achieved	12/19/2007	10/31/2012	10/31/2013	10/31/2013
Comments (incl. % achievement)	The target value was established as 20% of 5,829ha = 1,166 ha, in 20013. The total achievement was 438ha.			
Indicator 6 :	Percentage of Grantees showing an improvement in their income compared to specific baseline referred to in Operational Manual			
Value (quantitative or Qualitative)	to be determined	15% of 3,905 families = 586	15% of 3,905 families = 586	49.73% , 1942 families of 3,905 projects grantees.
Date achieved	12/19/2007	10/31/2012	10/31/2013	10/31/2013
Comments (incl. % achievement)	332% of the target.			

b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Strategic environmental assessment completed with at least 2 workshops and 6 assessments carried out.			
Value (quantitative or Qualitative)	0	2 workshops and 6 assessments	2 workshops and 6 assessments	2 workshops and Assessments in 102 target Municipalities
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	100%			
Indicator 2 :	A new institutional and policy framework for integrated ecosystem management and biodiversity conservation, involving the state government, civil society and the state committees of the Biosphere of the Caatinga designed and adopted at the state government			
Value (quantitative or Qualitative)	0	1	1	1
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	100%			
Indicator 3 :	Ceará PREVINA program covers at least 60% of the state Caatinga's territory in year 2 and 80% in year 4.			
Value (quantitative or Qualitative)	0	1	1	1
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	100%. PREVINA program operating in 68 municipalities.			
Indicator 4 :	Charcoal-wood extraction sources and charcoal production sites in Bahia are monitored in 40% of the Project area by YR2, and 70% by YR4.			
Value (quantitative or Qualitative)	0	1	1	0
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	Secondary data were not identified because municipalities have no monitoring of these sources of extraction;			
Indicator 5 :	A 20 percent decrease in reported fires in the project area of both states compared to baseline.			
Value (quantitative or	0	20	20	20

Qualitative)				
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	0%. It's on the selection phase of companies for the development of geo-environmental data management (Calculation of % of burned area, preserved, hotspots etc.).			
Indicator 6 :	18 training sessions on IEM implemented 9 in each state. Half of the training sessions should happen at the local level.			
Value (quantitative or Qualitative)	0	18	18	36
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	200%			
Indicator 7 :	At least 600 decision makers trained on the use of integrated ecosystem management strategies and biodiversity conservation.			
Value (quantitative or Qualitative)	0	600	600	1760
Date achieved	12/19/2007	12/19/2007		10/31/2013
Comments (incl. % achievement)	293%			
Indicator 8 :	150 subprojects using IEM strategies are under implementation. For all subprojects, ¼ address indigenous peoples and quilombos, ¼ promote the revitalization of Caatinga's cultural patterns, and all address gender equality.			
Value (quantitative or Qualitative)	0	150	150	131
Date achieved	06/26/2007	09/27/2007	11/22/2010	10/31/2013
Comments (incl. % achievement)	87% of the target.			
Indicator 9 :	Hectares of rehabilitated areas with riparian vegetation in the subproject area increased by 50% compared with baseline.			
Value (quantitative or Qualitative)	0	50%	50%	352 ha
Date achieved	06/26/2007	09/27/2007	11/30/2012	10/31/2013
Comments (incl. % achievement)	A total of 352 ha were rehabilitated.			
Indicator 10 :	Downstream sedimentation in subproject areas has decreased by 20% compared to baseline.			
Value (quantitative or Qualitative)	20%	20%	excluded	
Date achieved	06/26/2007	09/27/2007	11/30/2010	

Comments (incl. % achievement)	Indicator removed - see Aide Memoir of Mission from November 22 to November 30, 2010.			
Indicator 11 :	Biodiversity gains in at least 50% of subproject sites, measured against data from baseline and through GEF SP 2 Tracking Tools.			
Value (quantitative or Qualitative)	Tracking tool	Tracking tool		Tracking tool
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	Project activities contributed to the consolidation of the protected areas, a total of 366,988 ha.			
Indicator 12 :	At least 12 new initiatives launched to protect and recover threatened species.			
Value (quantitative or Qualitative)	0	12		1
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	0%. 49 initiatives work with 2 endangered species (BA & CE); 6 initiatives with 1 species where there is uncertainty about the state of threat (BA).			
Indicator 13 :	At the end of the Project: At least 40 communities in both states are involved with the implementation of IEM.			
Value (quantitative or Qualitative)	0	40		40
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	100%			
Indicator 14 :	At least 1,200 ha of biodiversity conservation-friendly land use established on connective lands supporting corridors in Project watersheds.			
Value (quantitative or Qualitative)	0	1,200 hectares	excluded	excluded
Date achieved	06/26/2007	09/26/2007	11/30/2010	10/31/2013
Comments (incl. % achievement)	Indicator exclude.			
Indicator 15 :	M&E system defined, including bio-indicators.			
Value (quantitative or Qualitative)	0	M&E system	M&E system	M&E system
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	50%. Management information system (MIS) based in the UGP and NGL implemented. Bio indicators were not defined.			
Indicator 16 :	Baseline contracted and surveys applied.			
Value	0	0		baseline defined

(quantitative or Qualitative)				
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	Socioeconomic and Environmental Diagnosis to establish baseline performed			
Indicator 17 :	Baseline repeated and results of comparison analyzed and disseminated.			
Value (quantitative or Qualitative)	0	to be defined		baseline repeated
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	Midterm reported was prepared.			
Indicator 18 :	Impacts and achievement of PDO assessed.			
Value (quantitative or Qualitative)	0	impact assessment		impact assessment
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	100%			
Indicator 19 :	Best practices and lessons learned disseminated in at least 80 percent of municipalities in the project area.			
Value (quantitative or Qualitative)	0	80%		80%
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	100%. Seminars and workshops with municipalities			
Indicator 20 :	At least 20 dissemination workshops conducted.			
Value (quantitative or Qualitative)	20		20	38
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	190%. 38 events.			
Indicator 21 :	Project management units are formally established and staffed in Bahia CAR and Ceará SEMACE.			
Value (quantitative or Qualitative)	0	PMUs established		PMUs established
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	100%			

Indicator 22 :	80% of contracts hired by FLEM timely executed.			
Value (quantitative or Qualitative)	0	80		80
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	100%			
Indicator 23 :	80% of the reports to be prepared by MTs under the project are timely issued.			
Value (quantitative or Qualitative)	0	80%		100%
Date achieved	06/26/2007	09/27/2007		10/31/2013
Comments (incl. % achievement)	125%			

G. Ratings of Project Performance in ISRs

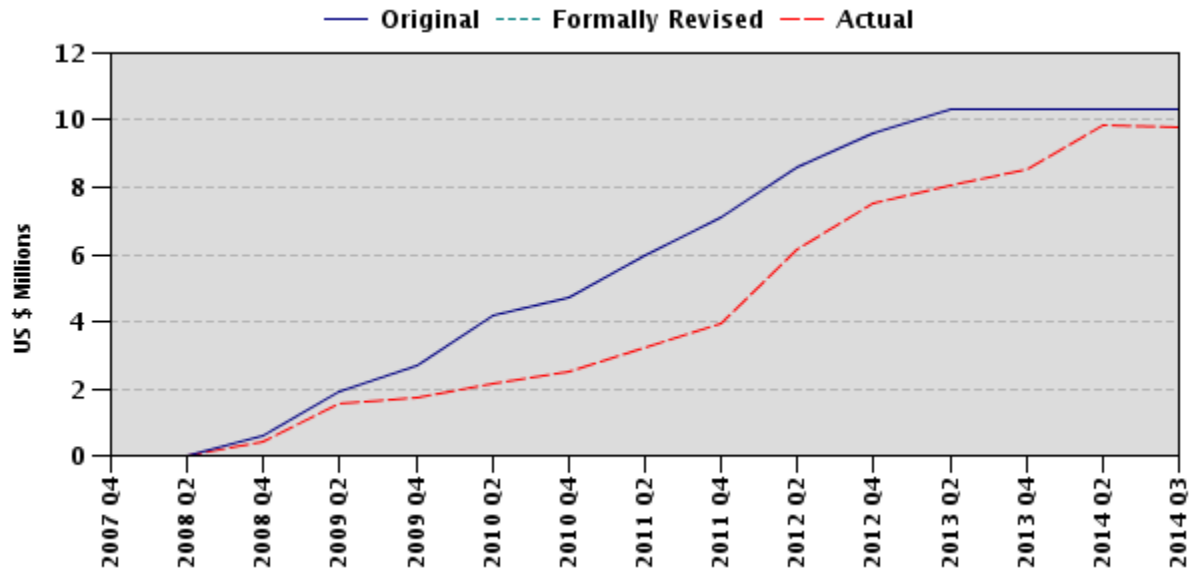
No.	Date ISR Archived	GEO	IP	Actual Disbursements (USD millions)
1	12/19/2007	Satisfactory	Satisfactory	0.00
2	06/19/2008	Satisfactory	Satisfactory	0.40
3	11/09/2008	Satisfactory	Moderately Satisfactory	1.54
4	05/29/2009	Satisfactory	Moderately Satisfactory	1.73
5	12/19/2009	Satisfactory	Satisfactory	2.15
6	04/19/2010	Satisfactory	Satisfactory	2.34
7	02/23/2011	Satisfactory	Satisfactory	3.64
8	11/14/2011	Satisfactory	Satisfactory	5.55
9	05/19/2012	Satisfactory	Satisfactory	7.56
10	01/01/2013	Moderately Satisfactory	Moderately Satisfactory	8.05
11	07/09/2013	Moderately Satisfactory	Moderately Satisfactory	8.57

H. Restructuring (if any)

Restructuring Date(s)	Board Approved GEO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		GEO	IP		
06/01/2012	N	S	S	7.56	The request of categories reallocation and project duration extension was justified by the need to allow more time for: (i) consolidation of project results and achievements especially with respect to further mainstreaming

Restructuring Date(s)	Board Approved GEO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		GEO	IP		
					the project's policy work on Integrated Ecosystems Management (IEM) approaches into the programs and public policies of Bahia and Ceará for the Caatinga (semi-arid biome), and concluding approximately 40 percent of community subprojects which suffered delays due to drought; (ii) provide a longer time horizon for ongoing environmental and socioeconomic monitoring and evaluation to better document impacts and extract lessons learned; and (iii) continue dissemination of lessons learned to foster further replication and testing of the IEM approach beyond the project target areas. The first year of project implementation was so slow due to the need to establish numerous interinstitutional partnership arrangements and to carry out outreach on subprojects. the restructuring extended the Project Closing date from October 31, 2012 until October 31, 2013, and reallocated disbursement categories.

I. Disbursement Profile



1. Project Context, Global Environment Objectives and Design

1.1 Context at Appraisal

1. The Caatinga comprises an area of approximately 844,000 km^2, or about 11 percent of the national territory. It extends throughout the States of Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia and Minas Gerais. Rainfall is irregular in terms of temporal and spatial distribution; rivers are intermittent; and soils located on top of crystalline rocks are shallow, resulting in significant and quick surface runoff. Droughts are a frequent and normal characteristic of the Caatinga.

2. The States of Bahia and Ceará were selected as project sites since together they encompass about 50 percent of the biome (70 percent of Ceará's and 50 percent of Bahia's live within its boundaries). The governments of both states were interested in addressing biodiversity issues and ecosystem management, and the Caatinga was one of their top priorities.

3. The Project was aligned with the Global Environment Facility's (GEF) Multi-Focal Area through Operational Program (OP) 12, Integrated Ecosystem Management (IEM), by contributing to the long-term protection of Brazil's globally important ecosystems and the uniqueness of the Caatinga Biome. In keeping with IEM Strategic Priority 1 (IEM-SP1), the Project was aimed at providing capacity building and technical assistance to strengthen the policy, regulatory, and market frameworks for environmental protection, while at the same time strengthening the institutions and information systems needed to support IEM approaches. The project design also conformed to the IEM-SP2 by promoting on-the-ground investments to implement IEM approaches within specific protected areas and natural landscapes. The Project also contributed to: (i) the preservation and conservation of the Caatinga's globally significant biodiversity, consistent with the Biodiversity Focal Area and (ii) the reduction of land degradation and desertification, consistent with the Land Degradation Focal Area. The Project was also in line with the GEF's Strategic Priorities of "Mainstreaming Biodiversity" (BD-SP2) and "Implementation of Sustainable Land Management Practices" (SLM-SP2).

4. The Project was fully aligned with the environmental development objectives (DO) of the Bank's Brazil 2000-2002 Country Assistance Strategy (CAS), which emphasized the need for priority actions in environmental and natural resources management and the protection of fragile ecosystems[3].

1.2 Original Global Environment Objectives (GEO) and Key Indicators

5. For this Project, the PDO and GEO were the same. For purposes of this ICR, "PDO" refers to the objectives of both the Bank and the GEF. The PDO was "to contribute to the preservation, conservation, and sustainable management of the biodiversity of the Caatinga Biome in the Project States, while improving the quality of life of its inhabitants, through the introduction of sustainable practices."

[3] The project PAD (page 13, footnote 6) erroneously cites the Bank's Country Strategy for this Project. The Project was designed under the 2000-2002 CAS.

6. According to the Project Appraisal Document (PAD), key PDO indicators were:

- Integrated Ecosystem Management and biodiversity considerations mainstreamed in 6 sectoral policies or plans by participating states (GEF SP2 tracking tool).
- 6 existing PROBIO protected areas (150,184 hectares) are consolidated, with improved management effectiveness compared to baseline (GEF SP1 tracking tool).
- 2 new areas (60,000 hectares) of PROBIO priority areas created by the state of Bahia under specific SNUC/IUCN criteria.
- Two new RPPNs (Private Natural Heritage Reserve) established by the state of Ceará.
- 20% of degraded lands as measured by vegetation cover, in the project areas have been rehabilitated when compared with baseline.
- Communities implementing production-related subprojects show 15% improvement in their income compared to similar rural productive activities.

1.3 Revised GEO and Key Indicators, and reasons/justification

7. Not applicable. PDO and indicators were not revised.

1.4 Main Beneficiaries

8. Public beneficiaries included the State Governments of Bahia and Ceará as well as a number of public and private institutions with jurisdiction over elements of environmental management and social development (including the Federal Ministry of Environment, protected area administrations, water and land managers, and managers of a number of public/private programs and projects related to local development and agricultural issues, among others).

9. Communities and community associations and civil society associations were anticipated to benefit mainly from Project Component 2, which provided funding for the implementation of approximately 150 subprojects[4]. Both states included communities and community associations as eligible beneficiaries of subproject investments. Groups of particular interest included indigenous peoples and quilombos[5]; the gender dimension was specifically considered, aiming towards active gender equality in Project implementation.

10. Support was provided to the meetings of civil research associations and networks. Municipal governments that were enrolled to actively participate in the beneficiary selection processes, gained experience in managing IEM practices with a supervisory role.

1.5 Original Components

11. Component 1: Institutional and Policy Support for Integrated Ecosystem Management (GEF US$3.24 million), was designed to strengthen the institutional and policy frameworks required to improve the environmental management and conservation of the Caatinga Biome. This component targeted local institutions committed to IEM and conservation of the Caatinga, and provided new or strengthened existing policy mechanisms, especially for state government

[4] The PAD's main text and component description stated that 200 subprojects were to be implemented. However, the PAD's Results Framework (Annex 3) only included 150 subprojects as the relevant Intermediate Outcome Indicator. Project implementation, M&E and bank supervision consistently applied the 150 subprojects figure, which is also used in this ICR.

[5] Quilombos are descendants of fugitive Africans, brought as slaves to Brazil, who have lived together in the same locality and are linked by community bonds.

actors. Component 1 directly aimed at fulfilling the "contribute to the […] sustainable management of the biodiversity" portion of the PDO.

12. Component 2: Promotion of Integrated Ecosystem Management Practices (GEF US$5.1 million), was allocated slightly more than half the GEF contribution, and focused primarily on developing and implementing approximately 150 IEM subprojects. These subprojects essentially represented the primary field intervention of the Project, both from biodiversity conservation and human livelihood perspectives. Subprojects were organized in six categories of activities: (i) rehabilitation of degraded areas; (ii) conservation and sustainable use of biodiversity; (iii) water and land resources management; (iv) development of sustainable and cost-effective productive systems; (v) cultural and social development; and, (vi) fostering environmental incentives. Component 2 was directly related to achieving the PDO section on "improving the quality of life of Caatinga's inhabitants, through the introduction of sustainable practices".

13. Component 3: Monitoring and Evaluation, and Project Management (GEF US$ 1.66 million), included not only standard Project M&E, but also aimed towards building solid monitoring, evaluation and management structures in both states where the Project was to be implemented. Two separate but coordinating management teams (MT) were established, once in each state. For actual biodiversity M&E the Project decided on the use of GEF's Biodiversity Tracking Tools. Planned Project funding for Component 3 amounted to 16.6 percent of the GEF contribution; this relatively high amount was due to the need for developing a duplicate M&E system (one for each MT in each state). Even so, State Governments were expected to provide twice the GEF contribution for this component in additional financing.

1.6 Revised Components

14. Not applicable. Project components were not revised.

1.7 Other significant changes

15. No other changes beyond the restructuring previously mentioned did occurred.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

16. Project discussions began in early 2000 between the Bank and the States of Bahia and Ceará. Initial and revised project concepts were completed by February 2001, but a GEF PDF-B request was only endorsed by the Brazilian Government and submitted to the GEF for project development funding in 2004. It took the proponents another three years until a PAD was ready for appraisal; once approved, the Project became effective in September 2007.

17. From initial concept stage until its revised EOP date of October 31, 2013, the project was under the umbrella of four Bank CAS for Brazil (2000-2002, which provided the initial background for project design; 2003-2007; 2008-2011; and 2012-2015, which has been used to rate the relevance of objectives at EOP). Due to the normal duration of Bank projects (between 4 and 5 years), preparation and implementation under multiple CAS is not unusual. However, in this particular case 13 years elapsed between initial discussions and the conclusion of the project, a fact that during the drafting of the ICR raised questions about the continuous relevance of the project and the rationale for Bank intervention as compared to the country's context at initial design stages. While relevance of objectives is discussed separately in section 3 of this ICR, a review of all four CAS showed that, albeit under somewhat different formulations, the

sustainable management of Brazil's (and particularly the country's Northeast's) biodiversity, poverty alleviation and improved water and land management remained consistent Bank development objectives for the country and therefore sufficiently justified ongoing Bank involvement.

18. Project and subproject sites were carefully evaluated, and priorities for intervention were established based on PDF B-funded and external social and scientific research. As described in the Project concepts, PDF B documents, pre-PAD Project brief and Executive Summary[6], this period provided plenty of opportunities for the Project proposal to be extensively discussed with public and private federal, regional and local stakeholders, including a large number of potential beneficiaries and executing agencies in both states. This and the fact that the PDO remained relevant throughout a 13-year timeframe, have led to consider Project Preparation **Satisfactory**.

19. The Project had a compound PDO with three outcomes: "to contribute to (i) the preservation, (ii) conservation, and (iii) sustainable management of the biodiversity of the Caatinga Biome in the states of Bahia and Ceará". One major output was also included ("improving the quality of life of its inhabitants"), as well as a key activity for implementation ("the introduction of sustainable practices"). Final Project design included six PDO indicators that only partially reflected the outcomes mentioned above: while direct measurements of outcome (iii) were possible with these indicators, achievements related to the preservation and conservation of biodiversity (outcomes i and ii) had to be inferred from other sources of information, e.g., the successful establishment and management of protected areas or the recovery of degraded lands. This perceived weakness in Project design was compensated by adding 11 EOP intermediate outcome indicators (IOIs) that included specific and measurable conservation milestones (e.g., decrease in numbers of reported fires, number of hectares rehabilitated with riparian vegetation, decrease in downstream sedimentation in subproject areas, number of initiatives launched to protect endangered species, among others).

20. Project design displayed a rather high level of complexity. The fact that the Project was to be implemented in two states, each with its own land, water and conservation management structures, required a duplication of technical management structures and an additional layer of coordination, monitoring and evaluation. The Project included 150 subprojects that had to be managed on a case-by-case basis and new management approaches, added to the potential for problems during implementation. In order to manage the Project, technical structures (the management teams) were conceived, one in each state. The Project had 6 PDO indicators and 23 IOIs, which made Project M&E particularly challenging.

21. The Project's main public and private actors were highly committed to the Project's successful implementation. All four Bank CASs, the PDO and the overall Project design not only reflected Bank and GEF policy but were also aligned with Brazil's, Bahia's and Ceará's various sustainable development policy documents and frameworks. The Project design could have benefited from a more realistic assessment of the State counterparts' true capabilities as opposed to the level of official enthusiasm displayed prior implementation.

[6] Available on the GEF's website for this project – http://www.thegef.org/gef/project_detail?projID=1476

22. During restructuring only modest changes to operational budgets were required, mainly as a result of the one-year extension granted for EOP. Safeguards were properly assessed and managed during Project design. The Bank's operational policies 4.10 and 4.12 were triggered.

23. The Project's risk assessment framework has been considered the single major design flaw that contributed to the need for the Bank and the recipient (*Fundação Luis Eduardo Magalhães*, FLEM) having to do major efforts to keep the Project on track after a less-than-ideal first half.

24. For a Project with the design complexity, to be implemented in the Brazilian biome that is (climatically speaking) the most vulnerable and susceptible to desertification biome, the risk assessment lacked the necessary depth of analysis to provide realistic mitigation measures and corresponding risk ratings. The assessment:

- Acknowledged the weak institutional capacity of State actors, but failed to recognize the difficulties in bringing them up to the standards required for successful implementation.
- Failed to adequately assess possible difficulties for achieving proper coordination and continuity; changes in staff at state levels were not considered at all in the risk assessment, which resulted in unexpected (but in theory foreseeable) regional policy changes and lengthy learning curves to convince new staff to continue with Project activities and interventions initiated by their predecessors. In a fact, "political commitment" was expressly not considered a risk in the PAD.
- Acknowledged the possibility of economic disruptions, but fell short of evaluating the various scenarios that could cause these disruptions, which in turn would have required more specific mitigation measures and risk assessments.
- Did not include climate variability[7] as one of the major risks. Designing and implementing innovative land and water management mechanisms and technologies as a response to drought were part of the activities included in the PAD. The final Project evaluation report produced by the client in October of 2013 also noted that the risk assessment framework missed to consider climate variability[8].

25. In 2010 the semi-arid region of Northeast Brazil was hit by what is considered one of the worst droughts in the past decades, affecting about 10.6 million people. In 2011, 56 municipalities in Bahia and 13 in Ceará were placed under a state of emergency; by 2013 all municipalities included in the Project were under emergency status as well. The impact of this drought has been considered by the Implement Agencies, Recipient, and the Bank supervision team in various ISRs and during the Project's Midterm Review (MTR) as one of the factors that negatively impacted the Project during the second half of its implementation.

26. The Project's design and quality at entry met the theoretical requirements with sufficient detail to reasonably achieve the PDO, although some design flaws required indirect M&E approaches during implementation. The risk assessment framework was lacking; during implementation the Bank supervision team and the local implementing partner were able to

[7] The way in which climate fluctuates yearly above or below a long-term average value.

[8] Carlos Aquino. 2013. Projeto GEF Mata Branca, Conservação e Gestão Sustentável do Bioma Caatinga nos Estados da Bahia e Ceará (p070867 – Acordo de Doação TF 0900274), Produto 2 - Relatório Final de Avaliação do Projeto. Governos da Bahia e do Ceará/Banco Mundial.

compensate for most of the Project's overall design shortcomings, albeit not without significant efforts. As a result, the Project design and quality has been rated as **Moderately Satisfactory**

2.2 Implementation

27. According to the ISRs and Aide-Memoires, implementation was hampered by three main factors that, despite ongoing supervision and efforts by the Bank and implementation agencies, ultimately contributed to the low level of achievement of certain project outcomes:

- Issues with interagency coordination and communication as well as a lack of understanding of the Project by stakeholders created major delays during the first two years of implementation. In Bahia, where high staff turnover and varying degrees of institutional commitment to the Project were recurrent, implementation did not progress as expected.
- Absence of an initial baseline of degraded areas and of subproject beneficiaries' income did not allow the proper M&E of two project indicators. By EOP, the late development of baseline data implied that a complete measurement of project progress was not possible.
- The onset of a severe drought in 2010 placed additional pressure on local implementing agencies and partners that were already stretched thin by the efforts to mitigate the drought's impact. This ICR assesses of the effects of this event on overall project performance. In fact, the drought affected the implementation and outcomes.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

2.3.1 M&E Design

28. The Project contained a Results Framework that included six PDO indicators and a number of IOIs. To varying degrees depending on individual indicators, the framework reflected the wide range of proposed Project interventions and activities. Direct measurement of the outcome related to contributing "to the sustainable management of the biodiversity of the Caatinga Biome in the States of Bahia and Ceará" was possible with these indicators; however, progress related to the "preservation" and "conservation" of biodiversity (PDO Outcomes i and ii) had to be inferred from the results provided by the IOIs. Arrangements for results monitoring were described in detail and provided, under ideal conditions, an adequate vehicle for M&E.

29. Two of the six PDO indicators of the Results Framework were converted into IOIs in the "Arrangements for Results Monitoring" table. This apparent error was then carried over to the ISRs, where it remained until EOP. This was considered an error because no documentary explanation has been found to justify this change. The ISRs also tracked only four of the 23 IOIs originally included in the PAD, and none of these four allowed for direct measurements of progress toward the preservation and conservation of biodiversity.

30. Two IOIs (dealing with the measurement of reductions in downstream sedimentation and the establishment of corridors within 1,200 ha of land under conservation-friendly use) were removed by the client following discussions with the Bank during the 2010 MTR. Although the explanations provided were relatively satisfactory, a discussion of measures to compensate for these missing indicators[9] could not be found.

[9] Aquino's final project evaluation report (2013, page 29) suggested that after the removal of these IOIs, adjustments to PFO indicators 5 and 6 would have been appropriate.

31. A discrepancy - related to the way in which a key indicator was drafted and measured - was detected. Key indicator six, which deals with measuring the increase in income among target communities, was redrafted and its measurement approach was changed in the Project's Grant Agreement (GA) as compared to the original PAD version. However, project ISRs maintained the original PAD version throughout the Project's life, while for the ICR the client used the GA version. Thus, this indicator was not used for project evaluation purposes, because there would appear to be a lack of consistency between ISR and field reporting.

32. It is considered that the M&E design had weaknesses that were not properly addressed during the rather lengthy period of Project preparation and at entry. Two have already been mentioned: (i) difficulties in achieving proper coordination and buy-in of Project requirements; and (ii) the lack of PDO indicators to directly measure progress toward the achievement of part of the PDO. Some of the PDO indicators and IOIs lacked baseline values; this was especially the case in biodiversity conservation-related indicators. The collection of baseline information was expected to be one of the main activities for Project year 1. However, baseline values were not available until later during Project implementation.

33. The lack of baseline information was considered an important design flaw. The Project preparation teams (both on the client and Bank sides) had seven years to produce a sound M&E system based on available information. In fact, GEF PDF B financing approved in 2004 was, among others aspects, specifically aimed at designing "appropriate baseline studies and indicators for selected sites" and establishing "indicators and a monitoring and evaluation plan to detect environmental, physical, ecological, and socioeconomic changes induced by Project actions". A properly designed M&E system at appraisal should not have needed to rely on 'zero' baseline values (unless something was to be created from scratch, as was the case of the new protected areas). The M&E design performance has been rated **Unsatisfactory**.

2.3.2 M&E Implementation

34. Despite the overall design flaws, where indicators and baseline values did exist and the system was applied according to the PAD's guidelines, the Project did an admirable job of collecting accurate and relevant data. Thus, the M&E of individual subprojects generated large quantities of information. Bank ISRs, mission reports and internal subproject progress reports provided extensive examples of different levels of achievement that allowed FLEM and implementation agencies to adjust component and subproject execution. An indicator report produced by FLEM as part of the project's closure process provided detailed descriptions of indicator achievement with supporting data[10]. M&E implementation was hampered by problems related to the overall delays in Project implementation previously discussed, although the impact on actual (but limited) data collection and quality was not considered significant. M&E implementation performance has been rated **Moderately Satisfactory**.

2.4 Safeguard and Fiduciary Compliance

35. The Project had no safeguard and fiduciary compliance issues. ISRs throughout the Project life consistently rated safeguard compliance as **Satisfactory**, a rating with which this ICR agrees because there is no evidence that any of the safeguards triggered ware handled in an

[10] FLEM. 2013. Relatório de Acompanhamento dos Indicadores. Fortaleza, Ceará.

inappropriate manner. Financial management and procurement were regularly reviewed and audited. Beyond minor shortcomings that did not affect Project implementation, no issues were identified. Fiduciary compliance was consistently rated as **Satisfactory** by the ISRs, a rating with which this ICR agrees.

2.5 Post-completion Operation/Next Phase

36. The Project does not include post-completion operations of Project investments.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

3.1.1 Relevance of Objectives

37. Preliminary Project conceptualization began in early 2000 and continued through various design phases until Project appraisal and approval in 2007. Project implementation began in 2007 and closed in late 2013. This means that the Project was designed and implemented under the frameworks of GEF replenishments 2 to 5; Bank CAS/CPS 2000-2002, 2003-2007, 2008-2011, and 2012-2015; and Brazil's national development policies. In addition, GEF replenishment 6 will begin on June 1 of 2014.

38. Since 2012, the Ministry Environment (MMA) and the Brazilian Climate Change Fund have being investing to support initiatives for the creation and management of protected areas. The First Caatinga Regional Conference was held in 2012, during the United Nations Conference on Sustainable Development (Rio +20), which formalized the commitments to be undertaken by Federal and State Governments, parliaments, the private sector, civil society, local community associations, and academic for the promotion of this biome sustainable development.

39. One of the four strategic objectives of the Bank's current Brazil CPS for 2012-2015 is to "improve the sustainable management of natural resources and enhance resilience to climatic shocks while maximizing contributions to local economic development, and helping to meet rising global food demand." The PDO remains **Highly** relevant to the Banks country strategy.

40. The Project was developed under GEF 2 guidelines as a multifocal initiative under Operational Program (OP) 12: Integrated Ecosystem Management. The Project was considered to contribute toward the GEF's Strategic Priorities of "Mainstreaming Biodiversity" (BD-SP2) and "Implementation of Sustainable Land Management Practices" (SLM-SP2). OP12 was reviewed in 2005 and multifocal approaches were discontinued for GEF 4. By the time this ICR was completed, GEF 6 had already begun (as of June 1, 2014). PDO relevance has been compared against GEF 6 Programming Directions[11]. Of these, the Project's PDO contributes directly to: (i) all four biodiversity goals (to improve sustainability of protected area systems, reduce threats to biodiversity, sustainably use biodiversity, and mainstream conservation and sustainable use of biodiversity into production landscapes/seascapes and sectors); (ii) climate change goal two (to promote conservation and enhancement of carbon stocks in forest, and other land use, and support climate smart agriculture); and, (iii) land degradation main goal (to arrest

11 Available at http://www.thegef.org/gef/sites/thegef.org/files/documents/Annex%20A_GEF_R.6-Rev.04,%20Programming%20Directions,%20March%2031,%202014.pdf.

and reverse current global trends in land degradation, specifically desertification and deforestation, by promoting good practices conducive to Sustainable Land Management). As a result of GEF 6's new program priorities, the PDO remains **Highly** relevant.

41. In 2004, a National Action Program (*Programa de Ação Nacional de Combate à Desertificação e Mitigação dos Efeitos da Seca, PAN-Brasil*) was formulated under the sponsorship of the MMA and in cooperation with civilian society groups from the eleven states of Brazil's Northeast Region. PAN-Brasil mainly provides cross-cutting strategic guidelines, e.g., for the strengthening of smallholder farming and greater sustainability in agriculture, trade, and industry. PAN-Brasil became an official program and was incorporated in the Federal Government's Pluriannual Plan (*Plano Plurianual*, PPA) of investments, with emphasis placed on its role in promoting the transversality of the subject of "Combating Desertification". In 2008, twenty institutions established the Caatinga Cerrado–Eco-Productive Communities Initiative, which seeks to harness and encourage the gathering of experiences and references by networks, partnerships and enterprises with regard to eco-productive practices. It has partners and supporters in the Brazilian Federal Government, German Cooperation and NGOs. Thus, at country level the Caatinga Biome's conservation and the PDO remain **Highly Relevant**.

42. Considering the PDO's relevance with respect to Bank, GEF and country priorities is high and the framing of the objective allows a direct relationship with these priorities, the relevance of Objectives has been rated **High**.

3.1.2 Relevance of Design

43. Sections 2.1 and 2.3.1 of this ICR provide a detailed description of the project design and results framework, including perceived strengths and weaknesses and the effects these had on overall project implementation. Overall, the Project was well researched and prepared, although the risk assessment framework was relatively weak and failed to fully identify important issues. Project components were linked to the PDO and proposed activities covered the range of expected outcomes and outputs. The PDO was clearly stated and links to intermediate and final outcomes were present, although not in the most straightforward and measurable manner. The causal relationship between funding and outcomes was clear. The PAD included detailed budgeting elements that demonstrated clear thinking and due diligence during project preparation.

44. The PDO was clearly stated and links to intermediate and final outcomes were present, albeit not in the most straightforward and measurable way conceivable. The causal relationship between funding and outcomes was clear; in fact, the PAD included detailed budgeting elements that demonstrated clear thinking and due diligence during project preparation. The results framework could have been better organized and have included results specifically aimed at contributing towards the biodiversity preservation and conservation section of the PDO.

45. Overall project design was considered **Satisfactory** because its weaknesses were not critically detrimental to the Project's various levels of performance; increased efforts by the Bank and client teams to compensate for these shortcomings were successful; and design elements provided the enabling conditions for several major project achievements. As a result, the Relevance of Design has been rated **Substantial**.

3.2 Achievement of Global Environmental Objectives

46. The Project had a compound PDO with three outcomes: "to contribute to (i) the preservation, (ii) conservation, and (iii) sustainable management of the biodiversity of the Caatinga Biome in the states of Bahia and Ceará". For purposes of this ICR, the three outcomes have been reviewed and sub-rated separately. Overall PDO achievement has been rated by taking into account the sub-ratings and the relevance of each of the individual outcomes. Given the sometimes confusing concepts of "preserving" and "conserving" biodiversity, the PDO achievement was measure by using universally accepted definitions and applying these to the individual Project components.

47. *Preservation of the Caatinga's biodiversity.* "Preservation" was understood to reflect the concept of "untouchability" of biodiversity and ecosystems. As a result and for purposes of this ICR, this outcome was linked to Project component 1.2 (the establishment of protected areas) and subprojects aimed at protecting and recovering endangered species. Other components and outputs were fully aligned with either the conservation or sustainable management of biodiversity and therefore did not contribute to the achievement of this particular outcome.

48. With regards to the establishment of new protected areas, two new Private Reserves Natural Heritage (*Reservas Particulares do Patrimônio Natural,* RPPNs) were created in Ceará, covering 282 ha. Project activities contributed to the consolidation of 11 protected areas, a total of 366,988 ha, with improved management effectiveness compared to the baseline. (This exceeded by five the target value of six). Studies for the creation of new protected areas were conducted in Bahia, but there was an unfavorable political climate in the State Government for creation of new protected areas, particularly those with strict protection. The establishment of two additional protected areas in Bahia was never completed, because the difficulties encountered with that state during Project implementation also prevented the achievement of this output. Although the implementing agencies will continue the proposed protected areas creation process and reported 50 percent achievement stemming from some progress made in three prospective areas, the final indicator is considered zero.

49. With regard to the protection and recovery of endangered species under Component 2, the Project supported 49 subprojects focused on the recovery of degraded areas, including two endangered flora species, and nine endemic flora species. The Bahia team carried out efforts to reintroduce the Little Blue Macaw, also known as Spix's Macaw *(Cyanopsitta spixii)* in the São Francisco River region. The work in the Curaçá region involves DNA analysis of the captive population, analysis of historical habitats of this macaw, and qualification of supervisory agents, among other aspects. However, there is no consolidated information about the success of these initiatives on flora or fauna in terms of recovery and protection of endangered species. Considering the low level of impact achieved by these activities during the Project's lifetime, the achievement of this part of the PDO has been rated **Moderately Unsatisfactory.**

50. *Conservation of the Caatinga biodiversity* (i.e., protection or restoration under sustainable-use criteria) was an outcome to be achieved through various activities in Components 1 and 2. The PDO-included output of "improving the quality of life" of the Caatinga's inhabitants was also considered as being mainly conducive toward achieving this outcome, because local buy-in, participation and acknowledgement of conservation as a tool for increasing livelihood is widely accepted as a key component of efficient natural resources management.

51. Results for this outcome were mixed. A total of 438 ha were rehabilitated in both project states, representing 8 percent of the degraded area and 40 percent of the Project's target value as

per the baseline. It is important to note that the baseline value was established late in the Project, and that the abovementioned implementation difficulties contributed to delays in creating a proper enabling environment to successfully carry out many of the activities. According to the client-commissioned final evaluation report by Aquino (2013), more research and longer M&E time frames are required to properly assess success in recovery and restoration initiatives such as those funded by the Project. A number of subprojects were highly successful and provided technological, environmental and socioeconomic alternatives to the target communities. On the other hand, many subprojects failed to achieve their expected targets.

52. One key issue was a severe drought that affected the Caatinga beginning in 2010. Lack of water affected many of the subprojects, turning the communities' and authorities' attention away from the Project and toward more pressing problems, and physically impacting the implementation of some activities (especially those related to planting). The ICR team assessed the reported impact of the drought on project outputs and considered that, although extreme weather has the potential to disrupt any Bank intervention, in this particular case a drought (even a severe one), which is a common feature of the Caatinga environment and one of the drivers of this Project's development and implementation, did not constitute a sufficiently valid argument to fully account for the partial lack of outcome achievement. As a result of all of the above, the achievement of this portion of the PDO has been rated **Moderately Satisfactory**.

53. *Sustainable management of the Caatinga biodiversity* was the main outcome of Project Component 1 and one in which the ICR team believes the Project was highly successful. Capacity building, institutional strengthening, policy development and adoption, outreach and technological enhancement were outputs that were fully and successfully achieved. The ICR team acknowledged the efforts made by client and Bank teams to promote the implementation of this project component at various levels of state and local governments and community stakeholders, resulting in the drafting and adoption of policies and strategies aimed at implementing integrated ecosystem management (IEM). Targets were achieved or exceeded. Besides its expected outputs, the Project was able to promote strong working partnerships among traditionally unharmonious entities and groups and was featured in the Rio+20 Conference. In light of the available documentary evidence provided by the client, the achievement of this portion of the PDO has been rated **Highly Satisfactory**.

3.3 Efficiency

54. The economic analysis highlighted the fact that the project design itself incorporated cost-effectiveness considerations to maximize implementation effectiveness and ensure the cost-effective achievement of the Project's objectives by serving as a catalyst for (i) mainstreaming biodiversity considerations in the policy and legal frameworks of the States of Bahia and Ceará; (ii) developing institutional capacity to support sustainable and biodiversity-friendly land management; and (iii) promoting cost-effective and biodiversity-friendly demonstration investments in sustainable agriculture, pasture management, and natural resources. The economic analysis also emphasized that economic factors, together with environmental ones, guided the Project's design and rationale and included a full Incremental Cost Analysis.

55. At the preparation stage, the Incremental Cost Analysis considered that under the baseline scenario (i.e., without GEF funding) there would be very limited support (an estimated US$7

million) for the conservation of the Caatinga's unique biodiversity. The rate of biodiversity loss was considered alarming[12] and these losses were expected to continue at a similar or higher rate. Land degradation, uncontrolled fires and accelerated desertification would be likely to continue. The cost of not addressing environmental degradation would be considerably higher than the costs of investments in sustainable land, water and biodiversity management. The GEF alternative would achieve globally significant improvements in conserving the Caatinga's biodiversity and decreasing land degradation with a total incremental cost of US$23.06 million, US$10 million of which was from the GEF. At the end of the Project's duration, 98 percent of the funds were disbursed in the planned period. The US$10 million GEF grant leveraged US$19,53 million in counterpart funding to work toward providing global environmental benefits. In the absence of this Project, the Bahia State Government would nevertheless spend US$13,43 million and the Ceará State Government US$5,14 million on this type of project.

56. In Bahia, 1,760 families were beneficiaries of subprojects, 917 of these families benefited directly from income improvement activities and 52 percent of grantees experienced an improvement in their income. In Ceará, 2,145 families were beneficiaries of subprojects, 1,025 of them benefited from income improvement activities, and 48 percent experienced an improvement in their income. For the overall project, 50 percent of grantees improved their income compared to their conditions prior to project intervention. The main benefits estimated refer to family income improvement from agroforestry subprojects and were achieved in three ways: (i) productivity and sales increases; (ii) diversification of production and focus on adding value; and (iii) less need to buy products outside the community (see Annex 3 for details).

57. The Project's efficiency has been rated **Moderately Satisfactory**.

3.4 Justification of Overall Outcome Rating

58. The ICR team rated the Project's overall outcome as **Moderately Satisfactory**. This has been justified as follows:

- Relevance was rated **Substantial**. The Project's design and objectives were highly relevant to the goals, intentions and context underlying the initiative.
- Efficacy was rated **Moderately Satisfactory**. Of the three PDO outcomes, achievement in one was **Moderately Unsatisfactory**, in another **Moderately Satisfactory** and in the third **Highly Satisfactory**.
- Efficiency was rated **Moderately Satisfactory**. Although Project funding was spent in its entirety and no fiduciary issues were recorded, the lack of overall outcome achievement prevented the Project from providing the expected or best value for the money invested.

59. The Project managed to provide significant incentives to the States of Bahia and Ceará to continue working on improving their environmental management. The Project also offered a number of socioeconomic alternatives to its target communities. However, the Project failed to fully reach its objectives of preserving and conserving biodiversity.

[12] The native Caatinga forest cover decreased from 64 to 41 percent in the period between 1984 and 1997. Less than 1 percent of the biome was contained within protected areas and over 37 percent of the Caatinga's numerous endemic species were threatened.

3.5 Overarching Themes, Other Outcomes and Impacts

60. No additional overarching themes, or ones previously not covered, have been identified.

4. Assessment of Risk to Development Outcome

Rating: **Significant**

61. The difficulties faced by the Project were not easily to overcome and that some of these would continue. For example, quick turnover in public institutions was a problem that was not considered to be solvable in the foreseeable future and that would likely continue to create obstacles for smooth inter-institutional, inter-border protected area management. Changes in the political context were less likely, since the conservation and sustainable management of the Caatinga have been a consistent priority for successive state governments, but they may negatively impacting the continuity of the Project's outcomes.

62. Extreme weather and the resulting hardship, combined with insufficient options (both socioeconomic and environmental) for the local communities are a recurrent feature of the Caatinga, and regional and local governments and civil society stakeholders do not appear to have a short- or medium-term solution. Brazil's Northeast has had a prominent presence in the Bank's CPS/CASs, and this is not expected to change in the near future. It is very likely that changes in the region's political, socioeconomic and environmental context will continue to take place.

5. Assessment of Bank and Borrower Performance

5.1 Bank

(a) Bank Performance in Ensuring Quality at Entry

Rating: **Unsatisfactory**.

63. The Project had a number of weaknesses that stemmed from its preparation and design phases, an inadequate M&E system, and an incomplete risk assessment framework. Many of the problems during the first half of implementation were the result of unexpected difficulties in making local counterparts understand the intricacies and implications of the Project and in adequately coordinating actions across state borders.

64. The Bank did an unquestionable job in terms of its standard operational criteria, including assessing the overall strategic relevance and approach, properly evaluating the social development aspects, establishing adequate fiduciary and procurement guidelines and procedures, and correctly identifying safeguard issues and responses. Better judgment and due diligence, as well as a more in-depth analysis of the realities on the ground and a more technical approach to conservation- and context-specific M&E could have gone a long way toward preventing many of the later problems. Although not every contingency can be anticipated, there are at least three key instances in which the Bank displayed unsatisfactory performance: (i) An inadequate risk assessment was conducted, especially with regard to the possible appearance of extreme weather (droughts); (ii) sufficient due diligence appears to have been lacking in the assessment of the true capabilities and political context of State counterparts (from the documentation, it appears that the risk was known but not sufficiently acted upon by the Bank); and, (iii) the Bank could have done a much more thorough job in terms of assessing the viability of the proposed M&E system, especially with regard to the biodiversity. After seven years of

preparation the Bank should not have allowed a project with missing ecological baselines or biological indicators without adequate protocols to confirm their field feasibility.

(b) Quality of Supervision

Rating: **Moderately Satisfactory**.

65. The Bank and client teams did an admirable job in resolving implementation issues that became immediately apparent once the Project began. Although the PDO was not fully achieved as expected, project successes are the result of the efforts of these two teams. The Bank supported the client in resolving issues with interstate cooperation and by helping with the adoption and implementation of policy and socioeconomic activities. The Bank adequately fulfilled its fiduciary supervisory duties. ISRs were prepared and supervision missions were held regularly.

(c) Justification of Rating for Overall Bank Performance

Rating: **Moderately Unsatisfactory**.

66. The Bank could have been more proactive and could have displayed more technical proficiency in terms of problems with the M&E system, especially with regard to degraded areas and creation of protected areas. Overall, monitoring and evaluation remained the weak points during supervision. As a result of the above, the Bank's overall performance has been rated **Moderately Satisfactory**.

5.2 Borrower

(a) Government Performance

Rating: **Moderately Satisfactory.**

67. The project recipient is a nongovernmental institution, the Luis Eduardo Magalhães Foundation (FLEM). A grant agreement was signed by the Bank and FLEM, and a technical cooperation agreement was signed by FLEM and the Governments of Bahia and Ceará. Technical implementation of the Project was under the overall responsibility of the States' Management Team (MT-BA and MT-CE). The MTs were responsible for the technical oversight, management and monitoring of Project activities.

68. In the ISRs, government performance was consistently rated as **Moderately Satisfactory.** The ICR team agreed and also rated government performance as **Moderately Satisfactory.** This rating reflects the elements of the governments' performance: (i) beneficial implementation of community subprojects and institutionalization of participatory planning and implementation mechanisms to convince poor rural communities that environmental investments have value; (ii) increased capacity to convene and coordinate activities, and to build networks with civil society stakeholders; (iii) late willingness by state and local counterparts to understand and execute the Project's approaches; (iv) extremely slow progress throughout project implementation, and rushed execution in the final stages, mostly due to issues with interagency coordination and communication; (v) faulty assessment of implementation risks throughout implementation, due to the fact that climate variability and political scenario were not addressed; and (vi) a faulty monitoring and evaluation system that did not allow project progress to be measured adequately.

Recipient Performance

69. FLEM is a nonprofit foundation. It was declared an institution in the public interest. As the local recipient, it carried out the Project's fiduciary management and overall field supervision. FLEM's performance was consistently rated as **Satisfactory** by successive Bank missions and audits. FLEM has also been credited by the ICR team as a key player in ensuring the Project's ongoing implementation despite many difficulties, including its role as a bridge builder among state players who, at one point during implementation, were unwilling to work with each other and were placing the Project at risk. The FLEM performance would have been rated **Highly Satisfactory**; however, like the Bank, FLEM failed to properly identify and react in a timely manner to some of the issues (especially with M&E) that were present at entry and then became apparent during implementation. The FLEM's performance has been rated **Satisfactory.**

(b) Implementing Agency or Agencies Performance

Rating: **Moderately Satisfactory**

70. In Bahia, three agencies were involved in project implementation: (i) the State Company for Development and Regional Action (Companhia de Desenvolvimento e Ação Regional, CAR); (ii) the State Secretariat of the Environment (Secretaria do Meio Ambiente, SEMA); and (iii) the State Institute for the Environment and Water Resources (Instituto do Meio Ambiente e Recursos Hídricos, INEMA).[13] Through its offices located in targeted project areas, CAR had favorable conditions for the implementation of subprojects. Project activities were an essential contribution to the adoption of methodologies for integrated management of the ecosystem within its routines. CAR's performance is rated as **Satisfactory.** The participation of SEMA and INEMA in project implementation was affected by the State's reform of the Environmental System, which profoundly changed its structure and reorganized its staffing. This process affected the implementation of activities for Outcomes 1, 2 and 3. The performance of SEMA and INEMA is rated as **Moderately Unsatisfactory.**

71. In Ceará, the State Council for Environmental Policies and Management (*Conselho de Políticas e Gestão do Meio Ambiente,* CONPAM) was designed as the project implementation agency.[14] CONPAM used its coordination mandates to facilitate the Project's implementation, with the support of the participating institutional bodies such as the Committee for the Caatinga Biosphere Reserve and the State Council for the Environment. CONPAM managed to build partnerships with relevant municipalities and its performance is rated as **Satisfactory.**

(c) Justification of Rating for Overall Borrower Performance

Rating: **Moderately Satisfactory**

[13] CAR is a public company linked to the State Secretariat of Development and Regional Integration (Secretaria de Desenvolvimento e Integração Regional, SEDIR) with the mission of promoting regional development through socio-productive inclusion.

[14] CONPAM's aims are to formulate plans and implement the State Environmental Policy in a coordinated and cross-sectional manner, thus enabling the constitutional premises of protection and conservation of the environment. CONPAM activities imply intersectoral involvement among the various government levels (federal, state and municipal), with other authorities and with representatives of civil society, to ensure greater efficiency.

72. The ICR team rated the Project's overall borrower performance as **Moderately Satisfactory**. This has been justified as follows:

- FLEM's performance was rated **Satisfactory**;
- CAR performance is rated **Satisfactory;**
- The performance of SEMA and INEMA is rated **Moderately Unsatisfactory;** and
- CONPAM performance is rated **Satisfactory.**

6. Lessons Learned

73. Bank performance left much to be desired. Despite available time and resources, lack of quality at entry and suboptimal initial supervision were directly to blame for many of the subsequent problems during implementation. Bank projects, at least with regard to GEF operations, should begin with fully developed baselines and include full sets of carefully selected indicators that have adequate protocols and have been field tested prior to effectiveness. Risk assessment frameworks need to be taken more seriously. All risks (including climate-related events, natural catastrophes and other similar instances, where appropriate) should be properly assessed, and response scenarios should be evaluated and rated realistically.

74. Many of the problems that affected project performance were related to the states' political and sociocultural context. This is not a justification but rather a reminder that project design and preparation need to take these variables into account, and Bank teams have the primary responsibility of ensuring that every aspect of any given country's culture is built into a project. The "unexpected" during implementation is generally a result of poor planning or insufficient due diligence; it is not acceptable for relatively large investments in which plenty of time and resources have been available during the preparation phase.

75. Despite its shortcomings, the Project demonstrated that subgrants channeled through properly supervised subprojects and implemented by local stakeholders are a highly effective means of achieving project outputs. This, as well as a strong recipient (in this case, FLEM), with strong coordination ties to the Bank team and close fiduciary supervision, have proven to be a successful implementation arrangement.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

76. The ICR team held a meeting with implementing agencies and the recipient on June 10, 2014, in Salvador, to present and discuss the draft ICR. In addition, the following comments were received:

- It was registered the inexistence of cartographic bases aiming the recovery of degraded areas, during the preparation phase of the Project. In the state of Ceará, during the implementation phase, high resolution images were acquired. Land use mapping and soil occupation in the scales of 1:10,000 and 1:100,00 were carried out, generating maps and atlas, produced by CONPAN and FUNCEME in 2009, which served as baseline for the calculation of the areas to be recovered and closing the data gap previously existent in the direct intervention area of the Project;
- Regarding the Monitoring & Evaluation (M&E) of the subprojects, a system for monitoring and controlling of contracts and subgrants was implemented by the PMUs, fed by the respective Management Units, supporting the financial management of FLEM;

- Regarding the PDO indicator number 6, The recipient and implementing agencies argue that the PDO indicator number 6 with regards to income improvements among beneficiary communities should be considered insofar as it has been achieved no matter if it is defined in the terms established in the Grant Agreement or in the terms established in the PAD; and,
- It was acknowledged the support of the World Bank staff during the implementation phase, which was considered as a contributing factor for the success of the Project.

Annex 1. Project Costs and Financing

Relatório de fontes e categorias

(Expresso em Dolar)

FONTES E CATEGORIAS	ACUMULADO TOTAL			
	GEF	CONTRAPARTIDA		TOTAL
		Ceará	Bahia	
I. Fontes				
1. Doação GEF				
1.1. Desembolsos na Conta Especial	8.565.665,61	0,00	0,00	8.565.665,61
1.2. Pagamentos Diretos	0,00	0,00	0,00	0,00
1.3. Reembolso para Conta Especial	0,00	0,00	0,00	0,00
Subtotal	8.565.665,61	0,00	0,00	8.565.665,61
2. Contrapartida				
2.1. Estado	0,00	5.136.209,68	13.426.313,97	18.562.523,64
2.2. Governo Federal	0,00	0,00	0,00	0,00
2.3. ONG's	0,00	0,00	0,00	0,00
2.4. Comunidades	0,00	370.871,94	591.684,33	962.556,27
Subtotal	0,00	5.507.081,62	14.017.998,29	19.525.079,91
3. Adiantamento FLEM				
3.1. Adiantamento FLEM	0,00	0,00	0,00	0,00
Subtotal	0,00	0,00	0,00	0,00
4. Rendimento de Aplicação Financeira				
4.1. Rendimentos da Aplicação Financeira	0,00	174.241,06	174.241,06	348.482,12
Subtotal	0,00	174.241,06	174.241,06	348.482,12
Total Recursos	**8.565.665,61**	**5.681.322,68**	**14.192.239,35**	**28.439.227,64**
II. Usos				
Categorias				
Categoria 1	2.630.710,83	2.249.952,34	3.653.072,85	8.533.736,02
Categoria 2	4.630.929,11	3.126.115,80	10.364.925,45	18.121.970,35
Categoria 3ª	703.786,64	122.477,35	122.477,35	948.741,33
Categoria 3B	144.162,29	131.013,48	0,00	275.175,77
Subtotal	8.109.588,87	5.629.558,96	14.140.475,64	27.879.623,47
Total Aplicado no Projeto	**8.109.588,87**	**5.629.558,96**	**14.140.475,64**	**27.879.623,47**
Saldo	456.076,74	51.763,71	51.763,71	559.604,17
Saldo Inicial no Período	-	-	-	-
Saldo Final no Período	456.076,74	51.763,71	51.763,71	559.604,17

Annex 2. Outputs by Component

Component 1 : **Institutional and Policy Support for Integrated Ecosystem Management**		
	Indicator	**Outputs**
Institutional and policy framework for integrated ecosystem management. Improved Ecosystem	YR 2. Strategic Environmental Assessment completed with at least two workshops and six assessments carried out.	**Bahia:** 1. Course on Strategic Environmental Assessment (SEA) for the the Government of Bahia's planning experts; 2. Integrated Ecosystem Management has been developed by COPPE/UFRJ and state technicians who are part of the Working Group.
		Ceará 1. Five SEAs conducted; 2. Four SEA courses, comprising 31 participants, with a total workload of 64 hours, with the objective of disseminating knowledge and its applicability in the strategic actions and formulation of programs and intersectoral policies (2009); 3. Four lectures on Caatinga (2009); 4. Four workshops comprising 93 participants in the municipalities of Acopiara, Quixeramobim, Tamboril and Fortaleza (2009); 5. State Seminar–Launch of SEA (2009); 6. Workshop comprising 51 participants (2010); 7. Four workshops comprising 100 participants in the municipalities of Sobral, Novo Oriente, Acopiara and Quixadá (2010); 8. State Seminar in Fortaleza–Presentation of the results of the SEA (2010).
	YR 3. A new institutional and policy framework for integrated ecosystem management and biodiversity conservation, involving the state government, civil society and the state committees of the Biosphere of the Caatinga designed and adopted at the state government level in each state.	**Bahia:** 1. Support to the State Committee of the Caatinga Biosphere Reserve - Bahia; Stimulate the creation of the municipal tax subsidy for environmental conservation and preservation in Jeremoabo, Curaçá, Itatim and Contendas do Sincorá - "Biocidades"; 2. Preparation of preliminary diagnostic and additional studies, including archaeological researches, for the creation of CU in Curaçá; 3. Preparation of Management Plan for the Serra Branca EPA / Raso da Catarina in Jeremoabo; 4. Creation of the Management Board of the EPA Serra Branca in Jeremoabo, including mobilization and qualification; 5. Preparation of preliminary diagnosis and archaeological researches, for the creation of CU in Itatim; 6. Implementation of Forestry Educator Program in Itatim and Contendas do Sincorá;

Component 1 : **Institutional and Policy Support for Integrated Ecosystem Management**		
	Indicator	**Outputs**
		7. Development of diagnosis of water and soil resources of the watershed of the Rio Limeira - Contendas do Sincorá.
		Ceará 1. Establishment of the State Committee of the Caatinga Biosphere Reserve (CBRC); 2. Validation of the renewal of the Caatinga outpost in the RPPN Serra das Almas; 3. Participation in the Caatinga working group of the Environment Ministry to restructure the National Council; 4. Participation in the construction process of the Energy Efficiency and Sustainable Use of the Caatinga Project of the National Environmental Fund; 5. Publication of Pamphlets: Caatinga Biome Biodiversity and Applicability in 2009 and 2010 (CONPAM, Legislative Council and Institute of Studies and Research for the Development of Ceará - INESP); 6. Panels on fauna and flora of the Caatinga biome for exhibitions in the Legislative Assembly and ICID +18.
	YR 2-4 Ceará PREVINA program covers at least 60% of the state Caatinga's territory in year 2 and 80% in year 4.	**Ceará:** 1. PREVINA program operating in 68 municipalities, with workshops and trainings on Forestry Environmental Management, SISFogo, Training of Brigades, Incident Command System, PREVINA Seminar and Workshop to encourage the request of Environmental Authorizations for Controlled Burning.
	YR 2-4. Charcoal-wood extraction sources and charcoal production sites in Bahia are monitored in 40% of the Project area by YR2, and 70% by YR4.	**Bahia:** 1. Secondary data were not identified because municipalities have no monitoring of these sources of extraction; Aiming to contribute to Action, the Project stimulated the creation of the Environmental Municipal Council in the municipalities of the area of intervention that did not yet exist (Jeremoabo, Itatim and Contendas do Sincorá); 2. The Project is also seeking to strengthen municipal environmental secretariats in the sense that they can come to perform the monitoring.

Component 1 : **Institutional and Policy Support for Integrated Ecosystem Management**		
	Indicator	**Outputs**
System of protected areas of Bahia and Ceará strengthened.	EOP. In both states there is a decresed of 20 percent of reported fires compared to baseline due.	**Ceará:** 1. It's on the selection phase of companies for the development of geo-environmental data management (Calculation of % of burned area, preserved, hotspots etc.).

Component 1 : **Institutional and Policy Support for Integrated Ecosystem Management**		
	Indicator	Outputs
Institutional capacity and knowledge for Integrated Ecosystem Management developed.	YR3: 18 training sessions on IEM implemented, 9 in each state. Half of the training sessions should happen at the local level.	**Bahia:** 1. Qualification Plan implemented for decision-makers in the acting area, with exchange workshops, dissemination of successful practices and training (2007-2013).
		Ceará 1. A total of 17 training sessions undertaken in 2009, contemplating 681participantes with the following themes: (i) Strategic Environmental Assessment; (ii) training of brigades fighting forest fires; (iii) Training in forest management; (iv) Establishment and management of nurseries; and (v) strengthening of instances Course - National Committee of Caatinga Biosphere Reserve (2009). 2. A total of 22 training sessions conducted in 2010, contemplating 664 participants with the following themes: (i) Agroforestry Systems for seedling installation and nursery production ; (ii) Training for use of Caatinga species products; (iii) Training of Environmental Educators; (iv) Support to the Integrated Environmental Management; (v) Training in Forest Management; (vi) Incident Command System Course- ICS; (vii) SISFOGO workshop; and (viii) Working workshop in the watersheds of Jatobá and Carrapateira; 3. A total of 7 training sessions conducted in 2011, contemplating 415 participants with the following themes: (i) Training course on exploitation of Caatinga species; (ii) Course in licensing and rural environmental regulation; (iii) Training on implementation of the agrosilvopastoral system; and (iv) Training course on participatory methodologies and conflict management (2011).

	EOP. At least 600 decision makers trained on the use of integrated ecosystem management strategies and biodiversity conservation.	**Bahia:** 1. Qualification Plan implemented for decision-makers in the acting area, with exchange workshops, dissemination of successful practices and training (2007-2013).
		Ceará: 1. A total of 1,760 decision-makers trained on issues related to the use of strategies of biodiversity conservation and integrated management of ecosystems were trained between 2009 and 2011.

Additional Comments:

This component was designed to promote the adoption of an integrated ecosystem management (IEM) approach for the biome in Bahia and Ceará. It also sought to change attitudes and behaviors toward conservation, and to foster a policy and regulatory framework supportive of the IEM approach. Proposed policy reform actions under this component included (a) development of a market framework as an underlying incentive for the transition toward IEM; (b) support for the consolidation and expansion of the states' systems of protected areas, and for improving their management; (c) development of capacity for assessment and monitoring; (d) support for efforts toward the conservation and sustainable use of biological diversity important to agriculture; (e) support for institutional strengthening of the relevant actors, including civil society stakeholders; (f) support for specific state efforts to reduce threats to the biome; (g) development of capacity for designing and monitoring pilot projects; and (h) strengthening the capacity of agencies, NGOs, and indigenous and *quilombola* communities to effectively implement activities aimed at protecting ecosystems. A Strategic Environmental Assessment (SEA) would be carried out to systematically evaluate the broader environmental and social implications of government policies, plans, and programs; and to ensure that environmental considerations are mainstreamed into the early phases of planning and decision-making. The assessment would then inform efforts to strengthen the policy and legal frameworks of the two states.

Strategic environmental assessments have been completed in both states. Training events, educational outreach and awareness raising campaigns have been carried out. Technical assistance has been provided.

Under this component, the state of Ceara has done important policy reforms. Actually Ceara is a model for rethinking Caatinga issues and is trying to mainstream into public policies. Seven policies have been mainstreamed in Ceara and one in Bahia. Ceara policies include: new state protected area law, new state policy to combat desertification, strengthened state policy for environment at municipal level (Selo Verde), strengthened fire prevention program (PREVINA), new state policy of integrated management of solid waste, new state forest policy, new state policy for environmental services. In Bahia a new municipal environmental law (Itatim) and 4 municipal environmental councils created. The performance indicator target of number of policies fulfilled 133%.

Studies for the creation of new protected areas have been carried out, but there was an unfavorable political climate in the federal and state governments for creation of new protected areas, particularly those with strict protection. As consequence, the creation of new protected areas felt behind schedule. In Bahia: (1) the preparation of the management plan for APA Serra Branca (67,237 ha) was completed; (2) various activities were carried out for FLONA Contendas do Sincoré (11,000 ha), including the creation of a capacity building center and the implementation of tree nursery subprojects; (3) environmental education activities have been carried for the State Park Morro do Chapeu; and, (4) the environmental/biological diagnostics and the socioeconomic studies aiming the creation of one new conservation area in the municipality of Curaca have been completed. In Ceara: (1) equipment for monitoring fauna has been acquired for the RPPN Serra das Almas; (2) the management council

was established for Municipal Park Themistocles Lins Fialho; (3) the preliminary studies for creation of two new areas have been completed; and (4) two RPPNs have been created, comprising 283 ha.

Component 2: Promotion of Integrated Ecosystem Management Practices		
	Indicator	Outputs
Land rehabilitation, water and soil conservation and biodiversity conservation practices have been incorporated into main productive activities, and community livelihood has improved	YR 3. 150 subprojects using IEM strategies are under implementation. For all subprojects, ¼ address indigenous peoples and quilombos, ¼ promote the revitalization of Caatinga's cultural patterns, and all address gender equality.	Bahia: • 60 subprojects implemented
		Ceará: • 72 implemented subprojects totaling 151 communities served. Of these, 5 % of projects with indigenous peoples and 12% with quilombolas .
	EOP. Hectares of rehabilitated areas with riparian vegetation in the subproject area increased by 50% compared with baseline.	A total of 352 ha were rehabilitated.
	EOP. Downstream sedimentation in subproject areas has decreased by 20% compared to baseline.	Indicator removed - see Aide Memoir of Mission from November 22 to November 30, 2010.
	YR 4. Biodiversity gains in at least 50% of subproject sites, measured against data from baseline and through GEF SP 2 Tracking Tools.	Project activities contributed to the consolidation of the protected areas, a total of 366,988 ha.
	EOP. At least 12 new initiatives launched to protect and recover endangered species.	Flora: 49 initiatives work with 2 endangered species (BA & CE); 6 initiatives with 1 species where there is uncertainty about the state of threat (BA); and 140 initiatives with 9 Caatinga endemic species.Fauna: 1 initiative to reintroduce the blue macaw in its natural habitat.
	At the end of the Project: At least 40 communities in both states are involved with the	132 subprojects in both states (72 in Ceara and 60 in Bahia) have been supported.

	implementation of IEM.	
	EOP. At least 1,200 ha of biodiversity conservation-friendly land use established on connective lands supporting corridors in Project watersheds.	Indicator removed - see Aide Memoir of Mission from November 22 to November 30, 2010.

Additional Comments:

132 subprojects in both states (72 in Ceara and 60 in Bahia) have been supported. The Project benefited 3,905 family farmers in the Caatinga biome. A share of 49.7 percent of these beneficiary families has benefited with income improvement activities. Performance indicator target of number of subprojects fulfilled 88%. In Ceara, 52 subprojects for rehabilitation of degraded areas are underway, to recover 690 ha, involving1,295 family farmers. In Bahia, 12subprojects for rehabilitation of degraded lands are underway with 1,225 family farmers. In 2012, Brazil's northeast struggles with the worst drought in 30 years, prompting authorities to declare a state of emergency. This has negatively affected success of subprojects for rehabilitation of degraded areas, as well as the domestic water supplies and productive subprojects. Subprojects expected to improve incomes include 60 subprojects in Ceara and in Bahia. The survey to monitor the improvement started in June 2013. 24 subprojects focused on rehabilitation of riparian vegetation (352 ha).

Component 3. Monitoring and Evaluation, and Project Management		
	Indicator	Outputs
Monitoring and Evaluation (M&E) System designed and implemented and Dissemination Strategy launched successfully	YR 1. M&E system defined, including bio-indicators.	• Monitoring and Evaluation System implemented, including bio-indicators; • Management information system (MIS) based in the UGP and NGL implemented; Geo-referenced mapping of use and occupation of the land in priority areas implemented.
	YR 1. Baseline contracted and surveys applied.	• Socioeconomic and Environmental Diagnosis to establish baseline performed.
	Mid-Term. Baseline repeated and results of comparison analyzed and disseminated.	• Mid term report
	EOP. Impacts and achievement of PDO assessed.	• Implementation impacts assessment reports.
	YR 2-4. Best practices and lessons learned disseminated in at least 80 percent of municipalities in the project area.	• I Workshop on integration of public policies: incentives for sustainability of Caatinga biome • Sticker album "Friends of Mata Branca " Diagnosis of the current situation of the COMDEMAS and its members, establishing guidelines in the qualification process and effectiveness of these collegiate instances Handbook: the Caatinga biome: biodiversity and applicability Maps of watersheds of Intervention of the Project Mata Branca Handbooks of the Mata Branca Project Handbook on the state/ national Caatinga day – 2010 • International Conference on Climate, Sustainability and Sustainable Development in Semi-arid Regions - ICID +18 - Lectures: (i) The Impact of the Mata Branca Project for the Sustainable Development in the Caatinga: Example the State of Ceará (Maria Tereza Bezerra Farias Sales) on 08/19/2010; and (ii) Sustainable Development for Protected Areas in Semi-Arid Lands (Maria Tereza Bezerra Farias Sales) in August 2010 • Presentation of Papers in the form of Banner: (i) Project for the Conservation and Sustainable Management of the Caatinga biome in the states of Ceará and Bahia - MATA BRANCA; (ii) The Role of the Government in the Context of Desertification in the State of Ceará: Previna Example (iii) The Selo Municipio Verde Program and the Strengthening of the Environmental Protection in Municipalities of Ceará; The Environmental Management Policy Council: : Integrated and Participatory Management of the Government in the State of Ceará to ensure the effectiveness of public policy. Casadinho Project between the Policy Board and Management of the Environment -

Component 3. Monitoring and Evaluation, and Project Management		
	Indicator	Outputs
		CONPAM and Master's Degree of Environmental Law Course from the Federal University of Ceará - UFC - for Institutional Strengthening - pending before the Legal Counsel of the UFC. • National Week of the Caatinga Biome – 2011 • I State Seminar of Integration of the Conservation Units inserted in Ceará territory • Support for the publication of the book "Caatinga - A New Look" - tenderer Caatinga Association, The Nature Conservancy - TNC and Government of Ceará. Exchange between family farmers of the beneficiary communities of the Project in Bahia and Ceará (November December 2012)
	EOP. At least 20 dissemination workshops conducted.	**Bahia:** • 16 dissemination lectures/workshop conducted in Brazil and abroad - Ceará, Bahia, Pernambuco, Rio de Janeiro, Sao Paulo and Colombia
		Ceará: • 22 events held
Project Management Team set up and working effectively	BOP. Project management units are formally established and staffed in Bahia CAR and Ceará SEMACE.	**Bahia:** UGP BA: 1 general coordinator, 3 Components Advisors, 5 General Coordination support technicians, 1 administrative assistant, one intern. In addition, four Local Management Centers were created in each municipality in the Project`s priority area of intervention - Contendas do Sincorá, Jeremoabo,, Curaçá and Itatim;
		Ceará: UGP CE: Environmental Policy and Management Council, composed of General Coordinator - Chairman, Technical/Operations Coordinator - Executive Secretary and Technical team - six (6) Council technicians; Committee of Environmental Monitoring and Assessment consists of the State Superintendence of Environment of the State of Ceará (SEMACE) (1) representative of the Forest Coordination, (2) two representatives of Ceará Foundation of Meteorology and Water Management (FUNCEME) with (2) two representatives of the Management of Water Resources and Environment and (3) three representatives of the Management and Monitoring, and (1) one representative of the Secretariat of Agrarian Development ; and the Monitoring, Assessment and Managerial and Financial Control Committee, with (1) one representative of the Department of Planning and Management (SEPLAG) and (1) one representative of the Institute of Research and Economic Strategy of Ceará (IPECE).
	EOP. 80% of contracts hired by FLEM timely executed.	Of the 24 contracts signed by FLEM, 15 were executed on time, without the need of an amendment.

Annex 3. Economic and Financial Analysis

1. The Final Evaluation randomly-selected Project-financed community subprojects to assess their economic results. The sample reached 137 families, including Project beneficiaries and the control group. An economic analysis examined this sample as well as secondary data for the target municipalities.

Scope

2. A total of 3,905 family farmers have benefited from community subprojects: 1,760 family farmers in the State of Bahia and 2,145 family farmers in the State of Ceará. Of this total, 1,942 family farmers (917 in Bahia and 1,025 in Ceará) have directly benefitted from income-improvement activities. They represent 49.7 percent of total beneficiaries: 52.1 percent of beneficiaries in Bahia and 47.8 percent of beneficiaries in Ceará. For the overall project, 50 percent of the direct beneficiaries have improved their income compared to their conditions prior to project interventions.

Methodology

3. The Project conducted a specific study to quantify the rate of economic improvement. The study used a control group (non-project beneficiaries) as a reference baseline. The methodology applied by the study includes:

- Review of project documents and reports;
- Review of scientific bibliography and research methodologies applied for poverty, environment and local community issues;
- Analysis of secondary data for target municipalities, particularly from the 2006 Agricultural Census;
- Interviews with key stakeholders involved in project implementation, including state agencies, technicians, researchers and local NGOs;
- Operational planning of field work, pre-assessment of questionnaires and definition of target groups, selection of projects to be visited in both states, and training of staff to fill out the survey forms;
- Use of questionnaires with 137 families, including the control group (panel analysis: with and without intervention); and
- Evaluation of the results of primary and secondary research.

Results

4. Income improvement in agroforestry subprojects was achieved in three ways:

- Increases in productivity and sales;
- Diversification of production and focus on adding value; and
- Reduction in the need to buy products outside the community; and savings in household expenditures.

Increases in productivity and sales

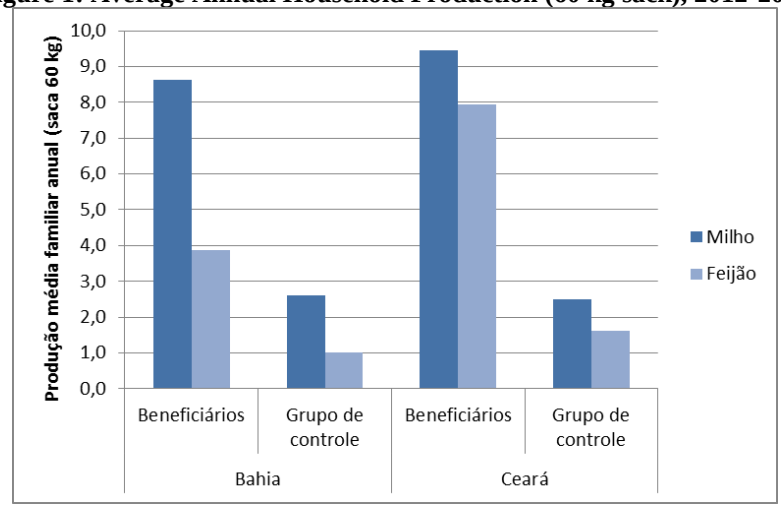
5. Using as a reference the basic crops (maize and beans) produced by small landholders in the Caatinga Biome, the study found that the production of project beneficiaries was much higher than in the control group at the time of the study.

6. In Bahia, maize production among beneficiaries was 231 percent higher than among the control group. This result was repeated in Ceará where beneficiaries' production was 280 percent higher than that of the control group.

7. The same trend was observed with regard to bean production. Beneficiaries produced more than the control group in both states. In Bahia, the beneficiaries' production was 318 percent higher than that of the control group, whereas in Ceará the beneficiaries produced 358 percent more than the control group.

8. Figure 1 below shows the performance of the beneficiaries of the Mata Branca Project in a comparative analysis with the control group (nonbeneficiaries) in the two states, focusing on the income earned from the production of the Semi-arid Northeast's two main crops: maize and beans.

Figure 1: Average Annual Household Production (60 kg sack), 2012-2013



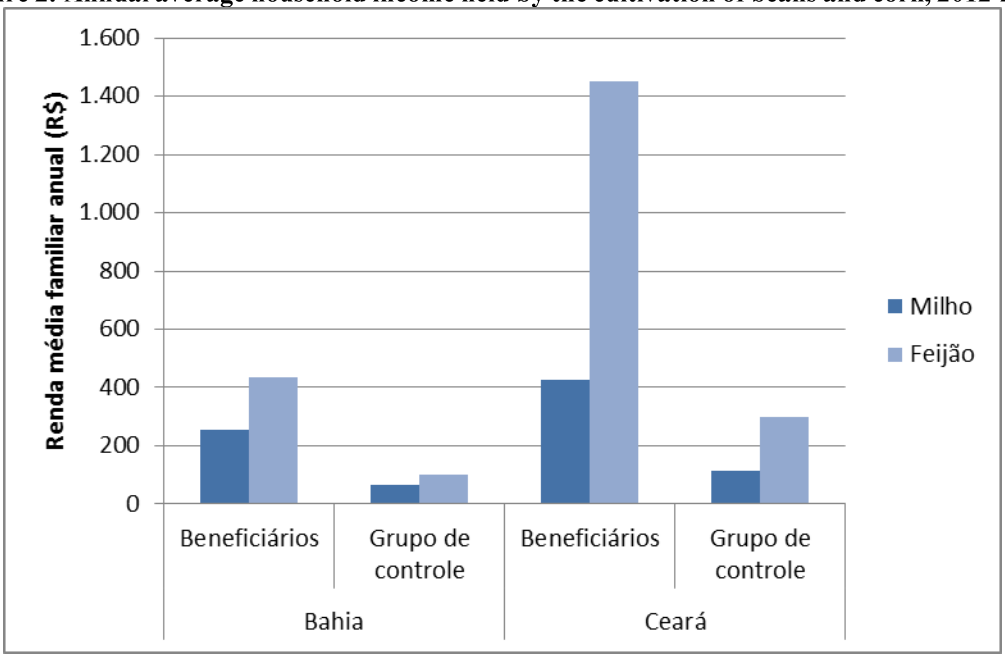
9. First, the data summarized in this figure shows that the production of maize and beans is significantly higher among beneficiaries than among non-beneficiaries.

10. In the last twelve months, beneficiaries who applied organic fertilizers in their plots achieved maize production rates equal to 8.6 sacks per hectare in Bahia and 9.5 sacks per hectare in Ceará. Meanwhile, producers in the control group achieved a much lower productivity level: 2.6 sacks per hectare in Bahia and 2.5 sacks per hectare in Ceará. Therefore, productivity gaps between beneficiary and control groups equaled 331 percent and 380 percent in the States of Bahia and Ceará, respectively.

11. The same trend is repeated in the case of bean production. Small landholders who have benefited from the Project show annual productivity rates ranging from 3.9 sacks per hectare in Bahia to 7.9 sacks per hectare in Ceará, while the control group in the two states shows only 1 sack per hectare in Bahia and 1.6 sacks per hectare in Ceará. In other words, production is around four to five times lower in the absence of the Project.

12. As shown in Figure 2, below, these results also prompt a significant increase in family income for the two crops: R$689 compared to R$165 (Bahia), and R$1,878 compared to R$410 (Ceará). For other crops, the sample lacks sufficient data.

Figure 2: Annual average household income held by the cultivation of beans and corn, 2012-2013



Diversification of Production

13. Another possibility for increasing income is diversification of production since livelihood diversification is expected to reduce social vulnerability and poverty, and to improve social resilience and shared prosperity. Diversification of production is also expected to increase opportunities of access to specialized markets with products of higher added value.

14. Evidence shows that this is actually happening with the Project`s beneficiaries, although there are not enough data for a robust statistical analysis.

15. Thus, the survey also shows that although members of the control group continue to focus on the production of maize, beans, lettuce and cassava, diversification of agricultural production was clearly visible among Project beneficiaries by the introduction of other vegetables, fruits, roots and tubers crops with higher market value According to the analyzed samples, new products include, among the most cited, tomato, okra, onion, watermelon, beets, scarlet eggplant, potato, cajá chestnut; parsley and popular pepper. Banana, papaya, grape and guava area also produced.

Table 1: Diversification in Family Agriculture, BA and CE

	Bahia		**Ceará**	
	Beneficiaries%	**Control Group %**	**Beneficiaries %**	**Control Group %**
Corn	28	45	37	33
Beans	24	45	69	44
Lettuce	17	9	8	
Yucca	26	9	4	

Collard Greens	17		0	
Coriander	13		4	
Other Vegetables	28		27	
Fruits	17		16	
Roots and tubers	7		10	

Economies in Monthly Household Expenditures

16. Fieldworks data show that saving in monthly household expenditures have also been achieved by Project beneficiaries. As detailed below in Table 2, the data confirm this argument, particularly for the state of Ceará (R$ 356 to R$ 506).

Table 2: Savings by beneficiary families and the control group, BA e CE

	Bahia		**Ceará**	
	Beneficiaries	**Control Group**	**Beneficiaries**	**Control Group**
Monthly expenditure for food (R$)	418	411	356	506
Monthly expenditure for food increased to% of families during the current drought	54	64	41	45

17. However, in the State of Bahia, it was also noticed that, during the current drought, increases in food costs affected a smaller percentage of beneficiary households compared to non-beneficiaries. Thus, it may be inferred that savings were experienced by households in both states, albeit to a lesser degree than expected due to the adverse impacts of the current drought.

18. These results need to be analyzed in the context of the current drought in the Semi-arid Northeast Region. Due to the current drought in this region, many producers have been unable to produce anything during the past agricultural year. The data collected suggest that pastoralists (among both the beneficiary and the control group) suffered the most. Among agricultural producers, however, the portion of beneficiary producers unable to produce was much lower (20 percent in both states) than the portion of non-beneficiary producers (44 percent in Ceará and 45 percent in Bahia). The beneficiary families' vulnerability may thus be regarded as lower than that of households in the control group. These findings suggest that the Project has helped to make its beneficiaries more resilient to climate hazards.

19. It is likely that the results of this indicator would have been better in the absence of drought and of delays in implementation of the community subprojects.

20. In any case, there is no doubt that savings in monthly expenditures through the use of agroforestry systems is a realistic possibility for the families who participated in the Mata Branca Project.

Conclusion

21. In broad terms, the main benefits estimated are related to family income improvement by agroforestry subprojects. These benefits were achieved in three ways: (i) increase in productivity and sales; (ii) diversification of production and focus on adding value; and (iii) less need to buy products outside the community.

22. Using the production of basic crops (maize and beans) as a reference, project participants' production was much higher than that of the control group. In Bahia, maize production was 231 percent higher; in Ceará it was 280 percent higher.

23. The same trend was observed with bean sales, which were 318 percent higher for project beneficiaries in Bahia and 358 percent for beneficiaries in Ceará than among the control group.

24. The study's findings also show that, although members of the control group continued to focus on the production of maize, beans, lettuce and cassava, diversification of agricultural production was clearly visible at the project level through the introduction of tomatoes, okra, onions, watermelons, beets, eggplants, potatoes, chestnuts, parsley and chili peppers. Bananas, papayas, grapefruit and guava were also introduced. There is evidence that diversification of production is actually taking place with the Project's beneficiaries, although there are insufficient data for a robust statistical analysis.

25. Field-work data collected among family farmers who have been benefited from the Project confirmed that it generated savings in monthly household expenditures. Differences in savings between beneficiary and control groups were intensified in Ceará (R$356 to R$506).

26. The analysis also shows that the beneficiary families' vulnerability in the face of the current drought was lower than for households in the control group. This result suggests that the Project has also helped to make its beneficiaries more resilient to climate hazards. Other benefits may have been generated but these were not assessed.

Annex 4: Summary of Recipient's ICR

EXECUTIVE SUMMARY

Project Description

1. The Project for the Conservation and Sustainable Management of the Caatinga Biome in the States of Bahia and Ceará (the Mata Branca GEF Project) is conducted by the respective state governments with funds from the Global Environment Fund (GEF). The World Bank handles counterpart contributions by both states and their implementation.

2. The scope of the Project adheres to the Project for Conservation and Sustainable Use of Brazilian Biological Diversity (PROBIO), which defined priority areas and actions for the Caatinga Biome, highlighting the preservation, conservation, sustainable use and management of biodiversity in the States of Bahia and Ceará. The Project is also aligned with the National Biodiversity Strategy, particularly with regard to the process of awareness raising, mobilization and environmental education of local populations, as well as raising the level of awareness and decision making by local stakeholders with regard to sustainable coexistence with the Caatinga.

3. Mata Branca's general objective is to contribute to the sustainable management, conservation and preservation of the biodiversity of the unique Caatinga Biome in the States of Cearáates of Ce while simultaneously improving the quality of life of its inhabitants through the introduction of sustainable development practices. To contribute to the reduction of anthropogenic pressure and the consequent degradation of the biome's natural resources, the Project was structured with the following components: (i) Support to institutions and public policies for Integrated Ecosystem Management (IEM); (ii) Demonstration subprojects: promotion of IEM practices; and (iii) Monitoring and evaluation (M&E), outreach and project management.

4. The Project had a budget of US$23.06 million, including: US$10 million in GEF funds as a non-reimbursable financial cooperation; a US$6.10 million contribution by each state; and US$1.4 million from the beneficiaries. In Bahia, the executive bodies are the Regional Development and Action Company (CAR) and the Secretariat of Environment (SEMA) with coordination by the Secretariat of Development and Regional Integration (SEDIR) and financial management by the FLEM.

Ongoing Relevance

5. The Project is considered a pioneer in addressing the integrated management of the Caatinga ecosystem. As a strategy, the Mata Branca Project implements institutional coordination, planning and demonstratión of appropriate technologies for the sustainable development of the Caatinga Biome. Positive results of a structural and operational nature have been reflected in the State Governments of Bahia and Ceará, thus providing various lessons learned. Component 1, when it promotes successful institutional coordination in various activities, highlights this process as an exercise to improve the use of this practice in state governments. Experience in identifying issues and drafting environmentally sustainable demonstration subprojects should also be recognized. These have proved important for knowledge and dissemination of practices in this type of work and have thus allowed them to be disseminated in the states.

6. The Project was implemented in two stages, with the broad participation of the technicians involved and various activities dealing with preservation, conservation and productive inclusion with income generation. In addition to public policies and biodiversity conservation, it is worthwhile to note the benefit gained by about 10,000 families through the implementation of 132 subprojects for the rehabilitation of degraded areas, conservation and management of biodiversity, management of soil and water resources, technological alternatives as a means for sustainable livelihoods, cultural and social development, and environmental incentive efforts.

Effectiveness

7. The consultants' observations and findings indicate that the following factors were instrumental to the achievement of the Project's objectives: (i) improvement of the political and institutional structure aimed at the Caatinga's integrated ecosystem management; (ii) increased interest by the Governments of Bahia and Ceará incorporation of the Mata Branca Project's learning in public policies for the Caatinga; (iii) increased demand by rural producers for environmentally sustainable practices; (iv) the relationship of trust between the project teams and direct beneficiaries who have demonstrated a growing sense of empowerment. These data are positive for future sustainability; (v) adoption of a system of incentives and conditionality for the implementation of subprojects; (vi) contribution of cross-cutting actions in environmental education to the apparent increase in awareness of the need to strengthen the protected areas system; (vii) conduction of workshops and training to support the expansion of knowledge for integrated ecosystem management; and (viii) the provision of human, financial and technical resources for the implementation of the monitoring system, thus allowing the systemization of data and the organization of information for decision making.

8. It should be emphasized that the most important non-controllable variable—the challenge of prolonged droughts, which require decision making and strategic initiatives to deal with such phenomena—negatively impacted the range of the Project's Performance Indicators 5 (damaged areas) and 6 (increased income).

Efficiency

9. The following aspects may be highlighted as benchmarks for the Mata Branca Project's success: (i) institutional support by CONPAM and CAR, maintaining daily and direct coordination, respectively, with the UGP-CE and UGP-BA; (ii) availability of financial resources for the procurement of services and support for planned activities; (iii) existence of willingness and interest of local communities to participate in the Project; (iv) appropriate project design given the key factors found in the 2007 version of the PAD; (v) openness of the World Bank and GEF to negotiations and renewal of the Grant Agreement in June 2012; (vi) level of motivation of the UGP, FLEM and partner institutions' teams; (vii) various initiatives and demonstration subprojects with innovative features in the biome that increased local demand and internalization through the adoption of environmentally sustainable practices; (viii) the unplanned initiative of the Environmental Pact in the Inhamuns region, involving 12 municipalities; and (ix) the Project's use of a specific computerized system, the Management Information System (MIS), with five modules, which meets the Project's needs perfectly.

Lessons Learned, Sustainability and Dissemination

10. Based on lessons learned and identified in the program's documentation, and on contact with the coordination team and interviews with direct beneficiaries, the following strategic priorities for sustainability and expansion of the program may be considered: a) Public Policies; b) Preservation and Conservation of the Biome; c) Integrated Ecosystem Management; and d) Sustainability and Dissemination.

11. With regard to strategic priority a) Public Policies, relevant actions are expected to be: (i) the improvement of existing policies created within the Mata Branca Project (Phase 1); (ii) design and implementation of new policies; (iii) support for sector partnerships; (iv) strengthening/creation of structures for aggregation and synergy; (v) thematic platforms targeting the development of sustainable businesses; (vi) advocacy on issues related to public policies; and (vii) coordination of government bodies with the private sector (the third sector).

12. With regard to strategic priority b) Preservation and Conservation of the Biome, the following recommendations are made: (i) consolidate and expand the work with protected areas; (ii) streamline the integrated actions to recover degraded areas and use conservation practices; (iii) conduct studies, prepare strategic plans, and implement C&T programs; (iv) strengthen environmental education and health programs (v) establish connectivity to enhance ecological corridors in watershed projects; and (vi) raise the awareness of governments and the private sector on the implementation of infrastructure projects.

13. With regard to strategic priority c) Integrated Ecosystem Management, the following are considered fundamental themes: (i) associations; (ii) sustainable production and management; (iii) technical assistance; (iv) market access; and (v) training to encourage innovation.

14. Regarding strategic priority d) Sustainability and Dissemination, the following priority actions and possible projects are considered, without overlooking others: (i) creation of revolving funds such as the matching grant mode, which involves the interest of beneficiaries; (ii) financial guidance and access to credit; and (iii) transfer of the methodology to other regions

Annex 5. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Barbara Brakarz	Junior Professional Associate	LCSSO	
Daniel R. Gross	Lead Anthropologist	LCSSO	
Jose C. Janeiro	Senior Finance Officer	CTRLA	
Kathryn L. Johns Swartz	Operations Analyst	LCSSD	
George Campos Ledec	Lead Ecologist	AFTN3	
Mariana Margarita Montiel	Senior Counsel	LEGLE	
Waleska Magalhaes Pedrosa	Program Assistant	LCC5C	
Ricardo L. B. Tarifa	Forestry Spec.	LCSRF	
Supervision/ICR			
Elza Suely Anderson	Consultant	LCSSO	
Alberto Coelho Gomes Costa	Senior Social Development Spec	LCSSO	
Nicolas Drossos	E T Consultant	LCSFM	
Adriana Goncalves Moreira	Senior Environmental Specialis	LCSEN	
Andre Rodrigues de Aquino	Carbon Finance Specialist	CCGCF	
Agnes Velloso	E T Consultant	LCSEN	
Luciano Wuerzius	Procurement Specialist	LCSPT	

Annex 5. Summary of Borrower's ICR and/or Comments on Draft ICR

CAR
1983-2013

Regional Integration and Development Secretariat
Government of Bahia

Salvador, June 11, 2014
Letter n. 051/2014

The Honorable
Nádia Holtz da Nova Moreira
SUDES/FLEM Superintendent

Dear Madam,

Considering the Implementation Completion and Result report, the state of Bahia was surprised by some reviews and requests that is considered: (i) the complexity of the legal framework for the creation of Conservation Units in Brazil associated with the presence of traditional communities; (ii) the assistance of BIRD managers was satisfactory, (iii) (iii) the relevance of the social with the environment integration, which allowed a change in the mentality of the beneficiaries, in favor of an environmental awareness and effective preservation, immeasurable for the Project; and (v) continuity of actions linked to to the Mata Branca Project in Bahia and Ceará.

Sincerely,

Cássio Luis da Silva Biscarde
Mata Branca Project Coordinator

Government of Ceará State

Environmental Policies
and Management Council

Fortaleza, June 11, 2014

Letter N. 01/2014/Mata Branca Project Coordinator – CE

Mrs. Nádia Holtz da Nova Moreira
Technical Superintendent – SUDES da FLEM

Dear Superintendent,

Please find the considerations on the Implementation Completion and Result Report - ICR n. 0003138, which deals with the Mata Branca Project.

1 - In the preparation phase of the Project , it was registered the inexistence of cartographic bases aiming the recovery of degraded areas. In the state of Ceará, during the implementation phase, high resolution images were acquired. Use mapping and soil occupation in the scales of 1:10,000 and 1:100,00 were carried out, generating unseen maps and atlas, produced by CONPAN and FUNCEME in 2009, serving as baseline for the calculation of the areas to be recovered and closing a data gap existent in the direct intervention area of the Project;

2 - Regarding the Monitoring & Evaluation (M & A) of the subprojects , a system for monitoring and controlling of contracts and subdonations was implemented by the PMUs, fed by the respective Management Units, supporting the financial management of FLEM;

3 - Include the assessment of income improvement of the communities (15%), since the indicator established both in the Contract and in the PAD proves the scope of this indicator;

4 - Register the support of the World Bank staff in the implementation phase, contributing to the success of the Project.

Sincerely,

Maria Tereza Bezerra Farias Sales
Mata Branca Project Coordinator

Annex 6. List of Supporting Documents

Project Appraisal Document (Report No. 38663-BR) - June 1, 2007

Restructuring Paper 1 (Report No. 68396-BR) – June 1, 2012

Country Assistance Strategy 2003-2007 (Report No. 27043-BR) – December 9, 2003

Country Partnership Strategy 2012-2015 (Report No. 63731-BR) – September 21, 2011

ISRs

01	12/19/2007
02	06/19/2008
03	11/09/2008
04	05/29/2009
05	12/19/2009
06	04/19/2010
07	02/23/2011
08	11/14/2011
09	05/19/2012
10	01/01/2013
11	07/09/2013
12	02/03/2014

Carlos Aquino. 2013. Projeto GEF Mata Branca, Conservação e Gestão Sustentável do Bioma Caatinga nos Estados da Bahia e Ceará (P070867 – Acordo de Doação TF 0900274), Produto 2 - Relatório Final de Avaliação do Projeto. Governos da Bahia e do Ceará/Banco Mundial.