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The World Bank

Report No: ICR00002417

IMPLEMENTATION COMPLETION AND RESULTS REPORT  
(GEF-TF055093-CD)

ON A  
GRANT

IN THE AMOUNT OF US\$6.0 MILLION

TO THE  
REPUBLIC OF CHAD

FOR A  
COMMUNITY-BASED ECOSYSTEM MANAGEMENT PROJECT

June 27, 2012

Agriculture and Rural Development Unit  
Sustainable Development Unit  
Country Department AFCC2  
Africa Region

## CURRENCY EQUIVALENTS

Exchange Rate (Currency Unit = CFA Franc)

At Appraisal (May 2005):

CFAF 1.00 = US\$0.002

US\$1.00 = CFAF 500

At ICR mission (April 2012):

CFAF 1.00 = US\$0.0021

US\$1.00 = CFAF 475

## FISCAL YEAR

January 1-December 31

## ABBREVIATIONS AND ACRONYMS

ACD	Assemblée Communautaire de Développement (Local Development Community)
AFD	Agence Française de Développement (French Development Agency)
APL	Adaptable Program Loan
CAS	Country Assistance Strategy
CB EMP	Community-Based Ecosystem Management Project
CFAF	Africa Financial Community Franc
CY	Calendar year
EMS	Ecosystem Management Scheme
FACIL	Local Initiatives Fund
FOSAP	Population Support Fund
FY	Fiscal year
GEF	Global Environment Facility
GEO	Global Environmental Objective
GOC	Government of Chad
IEM	Integrated ecosystem management
LDCF	Least Developed Countries Fund (GEF)
LDP	Local Development Plan
MATUH	Ministère de l'Aménagement du Territoire, Urbanisme et Habitat (Ministry of Territorial Development, Urbanism and Habitat)
MERH	Ministère de l'Environnement et des Ressources Halieutiques (Ministry of Environment and Fisheries)
MTR	Mid-term Review
NAP	National Action Plan [to combat desertification]
NBSAP	National Biodiversity Strategic Action Plan
NEAP	National Environmental Action Plan
NGO	Nongovernmental organization
ONAREN	Observatoire National des Ressources Naturelles (National Observatory for Natural Resources)
PAPAT	Projet d'Appui à la Productivité Agricole au Tchad (Agricultural Production Support Project)

PIDR	Programme d’Intervention pour le Développement Rural (Rural Development Support Program)
PMU	Project Management Unit
PROADEL	Projet d’Appui au Développement Local (Local Development Support Project)
PRODABO	Programme de Développement Décentralisé d’Assoungha, Biltine et Oura (Decentralized Development Program for Assoungha, Biltine and Ouara)
PRODALKA	Programme de Développement Décentralisé du Mayo Dalah, du Lac Léré, du Mont d’Illi et de la Kabbia (Decentralized Development Program for Mayo Dalah, Lake Léré, Mount Illi and Kabbia)
PRSP	Poverty Reduction Strategy Paper
PSAOP	Projet d’Appui aux Services Agricoles et Organisations de Producteurs (Agriculture Services and Producer Organization Support Project)
PSAP	Agricultural Services Program
PTBA	Plan de Travail et Budget Annuel (Annual Work and Budget Plan)
Ramsar	Convention on Wetlands of International Importance
UNDP	United Nations Development Programme

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Country Director:	Ousmane Diagana
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ICR Team Leader:	Siv Tokle

**Republic of Chad**  
**Community-Based Ecosystem Management Project (CB EMP)**

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## Data Sheet

A. Basic Information			
Country:	Chad	Project Name:	Community-Based Ecosystem Management Project
Project ID:	P078138	L/C/TF Number(s):	TF-55093
ICR Date:	06/27/2012	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	GOVERNMENT OF CHAD
Original Total Commitment:	USD 6.00M	Disbursed Amount:	USD 5.32M
Revised Amount:	USD 6.00M		
Environmental Category: B		Global Focal Area: M	
Implementing Agencies:			
Ministry of Land Management, Urbanism and Habitat			
Cofinanciers and Other External Partners:			

<b>B. Key Dates</b>				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	11/08/2001	Effectiveness:	02/03/2005	06/20/2006
Appraisal:	02/28/2005	Restructuring(s):		
Approval:	06/28/2005	Mid-term Review:	03/16/2009	06/09/2009
		Closing:	03/31/2010	12/30/2011

<b>C. Ratings Summary</b>	
<b>C.1 Performance Rating by ICR</b>	
Outcomes:	Moderately Satisfactory
Risk to Global Environment Outcome	Moderate
Bank Performance:	Moderately Satisfactory
Borrower Performance:	Moderately Satisfactory

<b>C.2 Detailed Ratings of Bank and Borrower Performance</b>			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Satisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Moderately Satisfactory	Implementing Agency/Agencies:	Moderately Unsatisfactory
<b>Overall Bank Performance:</b>	Moderately Satisfactory	<b>Overall Borrower Performance:</b>	Moderately Satisfactory

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

<b>D. Sector and Theme Codes</b>		
	<b>Original</b>	<b>Actual</b>
<b>Sector Code (as % of total Bank financing)</b>		
Central government administration	27	27
General agriculture, fishing and forestry sector	34	34
General energy sector	8	8
Other social services	1	1
Sub-national government administration	30	30
<b>Theme Code (as % of total Bank financing)</b>		
Biodiversity	29	29
Environmental policies and institutions	29	29
Land administration and management	14	14
Participation and civic engagement	14	14
Water resource management	14	14

<b>E. Bank Staff</b>		
<b>Positions</b>	<b>At ICR</b>	<b>At Approval</b>
Vice President:	Makhtar Diop	Gobind T. Nankani
Country Director:	Ousmane Diagana	Ali Mahmoud Khadr
Sector Manager:	Martien Van Nieuwkoop	Joseph Baah-Dwomoh
Project Team Leader:	Soulemame Fofana	Valerie Marie Helene Layrol
ICR Team Leader:	Siv Elin Tokle	
ICR Primary Author:	Jean-Claude Balcet	

## **F. Results Framework Analysis**

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

The GEF project's development objective is to restore some of the Recipient's most fragile ecosystems by enabling local communities to better fight desertification, rehabilitate degraded lands and protect biodiversity.

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

**(a) GEO Indicator(s)**

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
<b>Indicator 1 :</b>	Nb hectares protected against deforestation, land degradation, and bush fires			
Value (quantitative or Qualitative)	none			289 ha (replication 159,146 ha)
Date achieved	06/28/2005			12/31/2011
Comments (incl. % achievement)				
<b>Indicator 2 :</b>	At least 50 villages in the Moundou woodfuel supply basin sustainably manage their wood resources			
Value (quantitative or Qualitative)	none	at least 50		64
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 3 :</b>	Level of endangerment of endemic mammals, birds and plant species reduced by at least one category in GEF priority zones (flora, fauna to be determined in baseline diagnostics and surveys, site-specific M&E plans)			
Value (quantitative or Qualitative)	none	at least one category		Qualitative evidence supports the outcome of strong positive impact on endemic fauna and flora
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 4 :</b>	Durable environmental monitoring and data management systems for the rural sector			
Value (quantitative or Qualitative)	none	n/a		ONAREN to prepare indicators for environmental monitoring
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 5 :</b>	Incremental adoption of soil fertility improvement and other sustainable			

	agricultural techniques			
Value (quantitative or Qualitative)	none	in 25% of targeted areas		Techniques adopted in 30% of targeted areas
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				

**(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
<b>Indicator 1 :</b>	Financing mechanisms for demand-driven community-based natural management subprojects that can achieve a positive global environmental impact when aggregated, are piloted and mainstreamed			
Value (quantitative or Qualitative)	none	By end of project, 70% of approved subprojects (constituting at least 50 subprojects) have been completed		116 subprojects completed and 123 approved for funding; 134% of approved subprojects target and 232% as regards number of subprojects target
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 2 :</b>	Capacity built within local communities and civil society in IEM principles and planning tools in order to address global environmental threats in the context of local development and NRM challenges			
Value (quantitative or Qualitative)	none	By midterm review, 50 training sessions or sensitization campaigns to benefit CBOs have been implemented at the community level IEM best practice guidelines have been finalized and are disseminated to all targeted communities		75 formal training sessions/ sensitization campaigns organized by project end; 150% of target IEM best practice guide prepared in June 2006, published (1000 issues) distributed to targeted communities
Date achieved	06/28/2005	06/20/2006		12/31/2011



Comments (incl. % achievement)				
<b>Indicator 3 :</b>	Local Development Plans (LDPs) in targeted zones specifically address integrated ecosystem management issues			
Value (quantitative or Qualitative)	none	By the end of the Project, at least 25% of LDPs		IEM reflected in at least 10 LDPs (against target of 5 initially set)
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 4 :</b>	Community associations, producers' organizations and marginalized groups are enabled to actively engage in ecosystem management schemes			
Value (quantitative or Qualitative)	none	By end-project, at least three ecosystem management schemes have been conceived		Six ecosystems management schemes of good quality prepared and validated
Date achieved	06/28/2005	06/20/2009		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 5 :</b>	Conducive enabling environment for decentralized natural resource management and environmental governance.			
Value (quantitative or Qualitative)	none	By midterm review, the draft decree on National Fund for Environment related to Law 14/PR dated August 17, 1998, has been prepared, and by end-project it has been enacted		Decree No. 168 creating the Special Fund for the Environment signed Jan. 12, 2012
Date achieved	06/28/2005	06/20/2006		01/12/2012
Comments (incl. % achievement)				
<b>Indicator 6 :</b>	Decentralization laws reflect shared vision of community-driven natural resource management.			
Value (quantitative or Qualitative)	none	By mid-term review, the draft Law concerning management of forests and fauna has been prepared, and, by-end		Law No. 14/PR/2008 on management of forests, fauna and fisheries signed June 10, 2008

		project, it has been enacted		
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 7 :</b>	Skills and enforcement capacity of decentralized line agents, particularly the Ministry of Environment and Fisheries, strengthened.			
Value (quantitative or Qualitative)	none	By the end of the Project, the implementation ratio of number of training sessions, as planned by the PMU to benefit the MERH reaches 60%		All training sessions, planned as part of the Annual Work Plan & Budgets (PTBAs) implemented, except for the CY2011, i.e., 84% implemented
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 8 :</b>	The program is managed effectively and efficiently in conformity with predefined procedures.			
Value (quantitative or Qualitative)	n/a	By end of project, 80% of the reports to be prepared by PMU under the Project M&E Manual have been issued in a timely manner		6 annual and 20 quarterly reports prepared and issued on a timely basis, except for CY2011
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				
<b>Indicator 9 :</b>	GIS databases and other management information systems to monitor targeted ecosystems are developed.			
Value (quantitative or Qualitative)	none	By end of project, a feasibility study of the National Observatory for Natural Resources Monitoring (ONAREN) has been performed and approved		Feasibility study finalized and approved on December 2011
Date achieved	06/28/2005	06/20/2006		12/31/2011
Comments (incl. % achievement)				

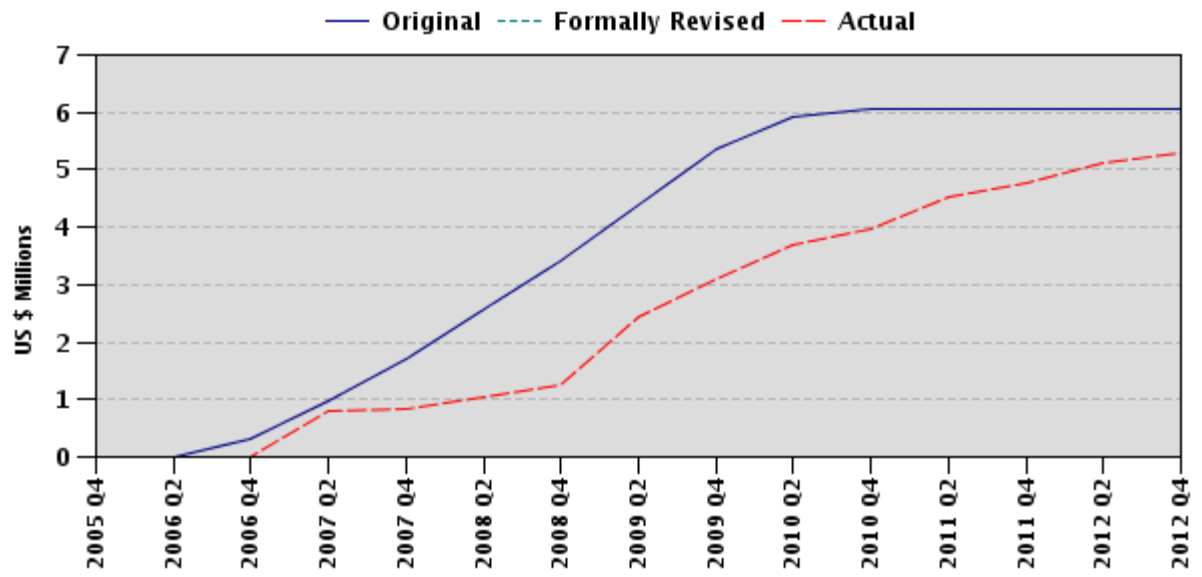
## G. Ratings of Project Performance in ISRs

No.	Date ISR Archived	GEO	IP	Actual Disbursements (USD millions)
1	12/20/2005	Satisfactory	Satisfactory	0.00
2	07/07/2006	Satisfactory	Satisfactory	0.00
3	12/21/2006	Satisfactory	Satisfactory	0.82
4	07/30/2007	Satisfactory	Satisfactory	0.86
5	12/13/2007	Satisfactory	Satisfactory	1.05
6	05/21/2008	Moderately Satisfactory	Moderately Satisfactory	1.17
7	06/23/2008	Moderately Unsatisfactory	Moderately Unsatisfactory	1.28
8	11/20/2008	Moderately Satisfactory	Moderately Satisfactory	2.32
9	05/29/2009	Moderately Satisfactory	Moderately Unsatisfactory	3.14
10	11/12/2009	Moderately Satisfactory	Moderately Satisfactory	3.50
11	06/23/2010	Moderately Satisfactory	Moderately Satisfactory	3.92
12	04/01/2011	Moderately Unsatisfactory	Moderately Unsatisfactory	4.64
13	11/29/2011	Moderately Satisfactory	Moderately Satisfactory	5.11
14	12/31/2011	Moderately Unsatisfactory	Moderately Unsatisfactory	5.15

## H. Restructuring (if any)

Not Applicable

## I. Disbursement Profile



## Community-Based Ecosystem Management Project (CB EMP)

### 1. Project context, development objectives and design

#### 1.1. Context at appraisal

1. At appraisal in 2004, the Global Environment Facility (GEF) Project Appraisal Document (PAD) of the Community-Based Ecosystem Management Project (CB EMP) offered an assessment of the exacting context in which the Project would operate. It described the challenges posed by desertification, degraded lands, and the loss of biodiversity in a setting of extreme rural poverty, in which rural communities and local government institutions had few resources to discover and implement strategies responding to those problems. The PAD clearly outlined how the proposed project to test a decentralized, community-based approach for integrated ecosystem management (IEM) was consistent with higher-level priorities and strategies of the Government of Chad (GOC) and its partners. The sections that follow provide details.

##### (a) Main national and sector issues

2. *Fragile ecosystems and loss of biodiversity.* Situated at the convergence of four major ecological zones (the West African Sahara, the Sahel, the Sudanian zone, and the Central African Forest), Chad's ecosystems are globally significant. They serve as permanent habitats, safe migration harbors, and assimilation zones for a multitude of unique, threatened species from across Africa. Most of Chad's critical ecosystems are informally or ineffectively protected and risk serious and irreversible degradation.

3. *Desertification and land degradation.* Desertification and land degradation have accelerated in Chad over the last 30 years. Their effects—which include mounting ecological damage and low rural productivity—are exacerbated by demographic pressure and economic development. Virtually the entire population depends upon unsustainable consumption of fuelwood and charcoal to meet basic energy needs. The twin burdens of land degradation and ecological damage could stifle economic growth, particularly in rural areas.

4. *Weak organization of rural communities and incipient decentralization.* The environmental challenges to Chad's sustainable development are intimately connected to weak local governance structures. The government supports policies integrating natural resource management into decentralized structures and plans, but decentralization is in its early stages. The relatively weak framework for decentralized environmental governance contributes to rising conflicts over land use, particularly between agriculture, pastoralism, and wildlife protection.

5. *Weak local management capacity, limited technical and environmental knowledge.* National capacity to manage natural resources and ecosystems is very limited, particularly with regard to protected areas and their buffer zones. A key constraint is the lack of equipment and trained personnel within the Ministry of Environment and Fisheries (Ministère de l'Environnement et des Ressources Halieutiques—MERH, formerly the Ministry of Environment and Water). The information base for long-term environmental monitoring and decision making, particularly in the rural space, is thin.

6. ***Poverty in Chad.*** Chad is one of the poorest countries in the world. At appraisal, about 80 percent of the population lived on less than one dollar a day. Although poverty was severe all over the country, it was most pronounced in rural areas, where about 80 percent of the country's population resided. The average annual income per capita was estimated at US\$250, with a marked disparity between rural areas (US\$133) and urban areas (US\$328). Agriculture employed 80 percent of the active workforce and contributed about 40 percent of the national income.

7. ***Poverty reduction strategy.*** Government efforts to reduce poverty are based on the Poverty Reduction Strategy Paper (PRSP) adopted in June 2003. Key elements of the strategy include: (i) increasing agricultural productivity and marketing; (ii) supporting rural organizations by strengthening their capacities and promoting the emergence of new organizations; (iii) sustainably managing natural resources; (iv) improving the effectiveness of the public sector through decentralization; and (v) providing basic services in rural areas.

#### **(b) Government strategy and rationale for World Bank and GEF assistance**

8. ***Environmental strategy.*** The National Environmental Action Plan (NEAP) was prepared in 1999 with the assistance of the United Nations Development Programme (UNDP), the French Agency for Development (Agence Française de Développement, AFD), and the World Bank. The NEAP establishes a framework for collaboration among the government, international partners, and nongovernmental organizations (NGOs) while raising awareness and increasing the participation of all stakeholders in sustainable natural resource utilization. The NEAP is being implemented through village, county, and departmental development plans. A number of its priorities were to be addressed by the Rural Development Program (Programme d'Intervention pour le Développement Rural, PIDR), which includes the CB EMP (see the next point).

9. ***Rural development strategy.*** The objective of the government's Rural Development Strategy as articulated in the PIDR (June 1999) is to increase production in a sustainable way that preserves the environment while reinforcing institutional and human capacities. The strategy's key elements include: (i) sustainably increasing agricultural productivity; (ii) developing competitive supply chains; (iii) sustainably managing and developing natural resources in the rural space; and (iv) improving the efficiency of the public sector. The strategy emphasizes the IEM approach spearheaded by CB EMP, including: (i) consultation and consensus-building with rural communities; (ii) promotion of improved soil and water management; (iii) participatory management of the rural space, conservation of biodiversity, and prevention of desertification and deforestation; and (iv) integration of priority national actions and strategies under major international environmental conventions in Local Development Plans.

10. ***Strategies for biodiversity, desertification, and wetlands.*** To ensure sustainable use of biodiversity in Chad and reconcile the objectives of local economic development with those of biodiversity conservation, the GOC ratified the United Nations Convention on Biological Diversity in 1994 and subsequently developed a *National Biodiversity Protection Strategy* and the associated *Biodiversity Strategic Action Plan* (NBSAP). The action plan highlights the need to develop and apply innovative, holistic approaches to the management of environmental resources, attitudes, behaviors, and initiatives.

11. The GOC signed the United Nations Convention to Combat Desertification in September 1997 and adopted its *National Action Plan* (NAP) to combat desertification in September 2002. The action plan aims to safeguard Chad's most important and threatened ecosystems, improve national policies, and strengthen capacity to preserve the production potential of land and water and mitigate the effects of drought. The CB EMP aimed to improve the integration of NAP priorities into Local Development Plans in priority areas.

12. Under the *Ramsar Convention on Wetlands*, which the GOC ratified in 1990, three wetlands of global and national significance were identified: the Chadian part of Lake Chad, the Logone River floodplains, and the Mayo-Kebbi watershed basin, parts of which are included in CB EMP priority intervention zones.

13. ***Rationale for GEF involvement and consistency with GEF priorities.*** Because it set out to help rural communities address their immediate environmental problems as part of a broader ecosystem management strategy, CB EMP was fully aligned with GEF Operational Program #12, *Integrated Ecosystem Management*.

14. The integration of holistic, community-based ecosystem management approaches into local development planning was new in Chad. As noted, CB EMP was conceived as a pilot, under which a range of interventions could be coordinated over time, with the goal of facilitating a more systematic implementation of the NEAP and creating synergies with other national strategies relating to biodiversity conservation and land management. By improving implementation of the Local Development Support Project (*Projet d'Appui au Développement Local*, PROADEL) and other World Bank-GOC baseline projects related to environmental management, the CB EMP could develop environmental benchmarks for the implementation of the entire PIDR program. Without incremental GEF support, IEM was unlikely to feature coherently in decentralized development planning or to be articulated as a priority in Local Development Plans. It was also considered unlikely that a purely demand-driven rural development project would address Chad's multiple environmental challenges effectively.

15. The PAD for the CB EMP was approved on June 28, 2005 (Report No. 32512-TD), and the corresponding GEF grant was approved on August 9, 2005 (TF055093-CD). The grant became effective in June 2006. The costs and financing of the Project and baseline projects appear in Annex 1.

16. ***Rationale for World Bank assistance.*** The World Bank Group's Country Assistance Strategy (CAS), presented to the Board on December 11, 2003, aimed to strengthen governance and enhance non-oil economic opportunities while reducing sources of vulnerability, particularly for the poor. Consistent with the CAS, the CB EMP was designed to help the government fight poverty by focusing on holistic management of natural resources, using a community-driven development approach. Activities supported under CB EMP would complement the activities of PROADEL and the other "baseline" projects (PSAOP, PRODALKA, and PRODABO) in support of decentralization.

## **1.2. Original Development Objectives and key indicators**

17. CB EMP was designed to be implemented over a single four-year period (2006 to mid-2010). In contrast, PROADEL, the main associated baseline project, was designed as an Adaptable Program Loan (APL) to be implemented in three phases over 12 years. CB EMP was to be fully integrated into the design and implementation of PROADEL's first

phase, which would establish a participatory, decentralized financing mechanism for community-driven development initiatives. In line with GEF practices at that time, CB EMP was not formally designed as an APL, but the Project was expected to pilot IEM approaches and methodologies in at least three ecosystems and to establish the legal and operational framework for a full-fledged national program.

**(a) Global Environmental Objective (GEO) and Project Development Objective (PDO)**

18. The Global Environmental Objective (GEO) (or GEF Operational Program Objective) was to achieve “multiple local, national, and global benefits through the widespread adoption of farming and resource exploitation practices integrating ecological, economic, and social goals,” under the broader umbrella of IEM.<sup>1</sup>

19. The Project Development Objective (PDO) was to restore some of the Recipient's most fragile ecosystems by enabling local communities to better combat desertification, rehabilitate degraded lands, and protect biodiversity. These critical ecosystems included: (i) Lac Weye and the Moundou charcoal supply basin, (ii) Binder-Léré Wildlife Reserve and Lake Léré, (iii) Bahr el Gazal, (iv) the Ouaddai-Biltine watershed system, and (v) Mandelia Fauna Reserve. These ecosystems encompass protected areas and buffer zones that harbor globally significant environmental assets and threatened species.

**(b) Key performance indicators**

20. Progress toward the PDO was to be assessed using indicators for global biodiversity protection and sustainable land management for each priority site: (i) number of hectares of land protected from environmental threats (such as deforestation, soil degradation, bush fires); (ii) number of villages sustainably managing their wood resources (in the case of the Moundou charcoal basin); (iii) changes in the populations of, or level of threat posed to, targeted species of global importance; (iv) establishment of environmental monitoring and data management systems; and (v) adoption of sustainable agricultural techniques. The complete results framework, including achievements attributable to the Project, is presented in Annex 2.

21. Results from activities implemented under individual Project components were to be measured using the following indicators: (i) number of subprojects approved and implemented (Component 1); (ii) number of sensitization campaigns and training sessions organized for the benefit of targeted communities, percentage of Local Development Plans incorporating IEM principles and activities, and number of Ecosystem Management Schemes prepared (Component 2); (iii) agreed environmental legal texts signed and made publicly available, and MERH capacity-building activities completed (Component 3); and (iv) number of progress reports prepared and contracts signed, the feasibility study of the National Observatory for Natural Resources (Observatoire National des Ressources Naturelles, ONAREN) completed, and well-defined parameters and methodologies in place for integrating soil degradation and biological diversity into the monitoring and evaluation system of PIDR.

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<sup>1</sup> As a GEF stand-alone operation, the Project is *not* expected to have both a PDO and a GEO. The PDO becomes the GEO and is formulated as such. The GEO and related indicators appearing in the PAD text refer more to the overarching goal of the GEF operational program to which the Project contributed, rather than to a specific goal of the Project. The ICR therefore focuses on the achievement of the PDO and the related indicators as basis for assessment.



### 1.3. Revised PDO and key indicators

22. Following the Mid-term Review (MTR) in June 2009, the World Bank task team and the GOC agreed to restructure the Project to modify the PDO and facilitate measurement. The proposed new PDO was to “Enable local communities in selected fragile ecosystems in Chad to better combat deforestation and soil degradation, and better manage protected areas.” As part of the restructuring, it was agreed to assign quantitative targets for several indicators.

23. The PDO and performance indicators were never formally revised, however. In early 2008, when the restructuring package was submitted to the Country Management Unit, relations between the GOC and the World Bank were suspended due to disagreements over the management of oil revenues. By the time relations were restored, the Project closing date was drawing near, and the Country Management Unit decided that there was no longer any point in revising the PDO and indicators. A proposed restructuring of the baseline PROADEL operation suffered the same fate.

### 1.4. Main beneficiaries

24. The CB EMP target population was the same as that of the baseline project, namely Local Development Communities (Assemblées Communautaires de Développement, ACDs) in the selected ecosystems, consisting of one or more villages, hamlets, or encampments sharing the use of common space and natural resources. Marginalized groups, including women, youth, transhumant herders, and other underprivileged groups were to be actively targeted. Other beneficiaries included staff of MERH and other decentralized agencies, as well as staff of NGOs and private service providers contracted to support communities in preparing subprojects.

### 1.5. Project components

25. The CB EMP had four components:

- ***Component 1: Financial support for community-based ecosystem management subprojects*** (US\$2.70 million). Component 1 provided cofinancing for subprojects in the form of matching grants. The subprojects were intended to support community-based ecosystem conservation and natural resource management activities within the CB EMP priority zones. Eligibility for the matching grants was based on community Local Development Plans (prepared under the baseline projects) and Ecosystem Management Schemes (prepared under Component 2), through a participatory and transparent process.
- ***Component 2: Capacity building for integrated ecosystem management*** (US\$1.86 million). *Subcomponent 2.1: Integrated Ecosystem Management Schemes* was intended to provide technical and organizational assistance to support the preparation of Ecosystem Management Schemes in the priority zones targeted by the Project. *Subcomponent 2.2: Training of actors* was designed to build capacity for ecosystem management among the targeted communities, as well as within the technical service agencies and service providers.
- ***Component 3: Support for an enabling environment for community-based ecosystem management*** (US\$1.72 million). *Subcomponent 3.1: Improvement of the*

*legal and regulatory framework* was designed to enhance community participation in environmental management and joint management of protected areas by: (i) supporting the preparation of the new Law 14 on Forestry, Fauna, and Fishing; (ii) finalizing various legal decrees pertinent to IEM; and (iii) financing awareness raising and advocacy for environmental reforms. *Subcomponent 3.2: Institutional support* was designed to identify capacity needs and fiscal reforms required to implement the national legal and regulatory framework for IEM; this *subcomponent* would also strengthen MERH's institutional, technical, monitoring, and enforcement capacity. *Subcomponent 3.3: Sustainable financing* was intended to promote partnerships for Ecosystem Management Schemes (by, for example, establishing a National Fund for the Environment, a framework for community partnerships to identify long-term cofinancing of ecosystem management activities).

- **Component 4: Management and Monitoring and Evaluation support** (US\$2.12 million). *Subcomponent 4.1: Support to project management* was intended to support the Project Management Unit of PROADEL, assisted by additional high-level staff recruited by the Ministry of Land Management, Urbanism, and Habitat (Ministère de l'Aménagement du Territoire, Urbanisme et Habitat, MATUH). *Subcomponent 4.2: Support to project Monitoring and Evaluation (M&E)* was designed to provide funding for the collection of M&E data and for subproject design studies. *Subcomponent 4.3: Monitoring of ecosystem management at the national level* was designed to provide financing for various monitoring activities and for a feasibility study for ONAREN.

## **1.6. Significant changes**

26. No major changes were made during implementation to the development objectives, components, or implementation arrangements. Following the MTR, the credit proceeds were reallocated to better reflect the actual demand and use of funds. Specifically, additional resources were allocated to subprojects, local capacity-building activities, support to decentralized IEM, and project management.

## **2. Key factors affecting implementation and outcomes**

### **2.1. Project preparation, design, and quality at entry**

27. The Project was prepared within the dual framework of the NEAP (1999), which stressed IEM and preservation of the natural resource base, and the Government's Rural Development Strategy (1999), which called for sustainably increasing agricultural production. The Project benefited from a Project Development Facility Block-B grant of US\$250,000 from the GEF, approved in June 2003 for one year. Proceeds from the grant were used to improve aspects of the Project's design related to the investment of funds for IEM, capacity building for IEM planning, strengthening the institutional framework, and putting in place environmental monitoring arrangements.

#### **(a) Lessons learned and incorporated into Project design**

28. Project preparation and background analysis benefited from analytical work done to inform the national environmental and sector-specific strategies (NEAP, NBSAP, NAP, Ramsar), as well as lessons learned from other projects in Chad (FOSAP, PSAP, FACIL,

Household Energy Project, West African Pilot Pastoral Project) and from World Bank experience in other countries (the Niger Natural Resources Management Project and Senegal Sustainable and Participatory Management Project).

#### **(b) Consultations**

29. The GOC prepared the Project back to back with PROADEL, using a multidisciplinary national team that included representatives from government agencies and civil society. A series of workshops were organized as part of preparation. Prior to appraisal, the GOC arranged for preparation of the operational, financial, and M&E manuals.

#### **(c) Project design**

30. Given the long-term development goals of CB EMP, the original PDO was appropriate, although it did not lend itself easily to the definition of detailed performance indicators. Some targets in the results framework were overly ambitious for a four-year project.

31. Because CB EMP was intended to complement PROADEL, the choice of project design was fairly straightforward. The design was deliberately holistic, in the sense that it was meant to cover the range of local, regional, and national interventions needed to promote decentralized IEM. At the community level, those interventions included subproject investments targeting the priority zones; at the local and regional levels, they included investments in capacity building for IEM and service delivery; and at the national level, they included investments supporting the establishment of an enabling legal environment for IEM. In hindsight, it can be argued that the scope of the proposed interventions was too broad and the number of proposed activities was too large. It certainly would have been easier to focus on a smaller number of ecosystems, but a restrictive approach would have reduced the value of the Project as a pilot operation intended to generate knowledge for scaling up IEM interventions across regions and ecosystems throughout the country.

32. The Quality Assurance Group reviewed the Project in December 2008 as part of the Quality Assessment of the Lending Portfolio and gave the Project an overall rating of Moderately Satisfactory. The quality of design was also rated Moderately Satisfactory, based on the relevance of the PDO, the approach (which took policy measures into account and benefitted from broad sector review), the complementarities with PROADEL, and the strong integration of social and environmental aspects.

#### **(d) Risk assessment.**

33. Most risks were identified during preparation, and mitigating measures were appropriately conceived. Two risks were arguably underestimated, however. The first was the risk posed by weak local implementation capacity. Project activities to build capacity at the community level proved insufficient, and subproject implementation was burdened by recurring financial and procurement problems. The second risk was the inadequacy of operating resources at the local level, which resulted in chronic implementation delays.

## **2.2. Implementation**

34. Implementation got underway shortly after Board presentation, with the help of counterpart funds made available by the GOC even before the GEF grant became effective. Many activities started more slowly than expected owing to weak local capacity, but factors external to the Project—including recurring civil conflict and multiple suspensions of the World Bank’s relationship with the GOC—prevented the World Bank task team from providing intensive implementation support at key junctures. For these reasons, the MTR did not take place until June 2009.<sup>2</sup> To compensate for time lost because of external factors, the Project’s closing date was extended three times: initially by one year and subsequently by six months and then three months. The Project closed on December 31, 2011.

35. The 2008 Quality Assessment of the Lending Portfolio rated implementation Moderately Unsatisfactory. It noted positive aspects of implementation (such as the effective financial management arrangements and close integration of the Project Management Units for CB EMP and PROADEL) and negative aspects (weak governance arrangements, implementation delays caused by civil unrest). The Quality Assurance Group made a number of recommendations: Revise the PDO at MTR, formulate a governance and anti-corruption plan, strengthen the M&E system, retrench project activities from eastern Chad due to the civil unrest, and inform all stakeholders about the status of Project-supported activities.

36. A balanced assessment of the performance of the Project must take into account not only internal factors that influenced implementation, but also external factors, both negative and positive. Details are provided in the sections that follow.

**(a) Negative implementation factors**

37. An unusually challenging set of circumstances prevailed throughout most of the implementation period:

- **Civil conflict.** The Project was implemented during a period of great turbulence in Chad. In the equivalent of a low-level civil war, opposition groups based inside and outside the country mounted regular armed attacks to overthrow the regime. Insecurity, especially in rural areas targeted by the Project, often made it unsafe for staff to travel to Project sites and/or perform their tasks. Civil disturbances and security operations related to the rebels disturbed fieldwork for almost the entire first half of CY2008. The frequent disruptions slowed implementation of many activities and forced some subprojects to be abandoned before they were finished.
- **Suspension of World Bank programs in Chad and closing of the World Bank office.** As noted, relations between the World Bank and GOC were severely strained, mainly owing to disagreement over the use of oil revenues as agreed under the Chad-Cameroon pipeline project. The World Bank suspended its program in Chad twice (CY2006 began with suspension of all World Bank programs; throughout CY2008, the World Bank office in Chad remained closed). Suspension temporarily stopped disbursements to all projects, and CB EMP activities slowed or ceased. When the suspension was lifted, some subprojects had to be entirely reinitiated. Disruptions were compounded because many

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<sup>2</sup> The PROADEL Mid-term Review was also delayed, eventually taking place earlier the same year (2009).

subprojects had to be implemented at a particular time, such as at the height of the dry season or the onset of the rainy season (tree planting, for example).

#### **(b) Positive implementation factors**

38. Even in the challenging and disruptive context just described, Project management successfully implemented most of the planned activities, which generated significant impacts on the ground (see [Section 3.3](#)). The positive external factors contributing to those achievements include:

- ***High demand for IEM support throughout implementation***, both for financing investment subprojects on the part of local communities and for capacity building on the part of central and local government services, service providers, and community-based organizations.
- ***Strong GOC commitment to IEM***, through keen interest in participating in supervision missions, facilitating communication with the World Bank, expediting the transfer of funds to project entities, providing guidance through the Steering Committee, and ensuring a supportive policy environment.
- ***Effective supervision support***, which provided useful guidance and feedback to implementing authorities. Supervision missions, although not carried out when World Bank operations were suspended, effectively combined the efforts of the World Bank, the government, and staff of CB EMP and PROADEL and other baseline projects.
- ***Proactive subproject implementation***, including the early piloting of a few “first-generation” subprojects in each target zone. The pilots were designed to compensate for the lack of Local Development Plans and Ecosystem Management Schemes at start-up by providing hands-on experience that could be used to accelerate implementation. When preparation of Local Development Plans and Ecosystem Management Schemes took longer than expected, the Project management team improvised so as not to delay implementation. Specifically, it identified potential bottlenecks, tailored subproject designs to community priorities elicited through *ad hoc* community meetings and sensitization campaigns, and subjected subproject proposals to systematic environmental screening. The awareness campaigns ensured that subprojects responded to community needs, and management collected the required background data on the specific subproject circumstances and environmental issues.

### **2.3. Monitoring and Evaluation (M&E) design, implementation, and utilization**

#### **(a) Design**

39. The M&E manual, prepared by the GOC and validated by the World Bank, was consistent with World Bank/GEF guidelines prevailing at the time, when criteria for preparing the logical framework and M&E plan were not as rigorous as those in use today. The M&E system had to contend with the following weaknesses:

- ***Ambitious design***. Some indicators required data collection procedures that proved challenging to implement in rural Chad and the vast, environmentally diverse area covered by the Project. Even today, very little data on the endangerment of endemic species is available.

- **Inadequate resources.** It was envisaged that CB EMP would rely on the baseline projects for regular data collection and undertake surveys only periodically during implementation. When the baseline projects did not perform the anticipated data collection tasks, the Project had to do so. After several baseline projects (PSAOP and PRODABO) closed before CB EMP was completed, the Project had to assume data collection activities formerly assigned to those projects, although it lacked budget and staff for that express purpose.
- **Missing baseline.** The lack of good baseline data at inception hampered subsequent M&E efforts. In addition, a number of indicators were not quantified at appraisal, on the grounds that the Project's demand-driven activities could not be described *ex ante*.

## **(b) Implementation**

40. Recruitment of the M&E officer was not finalized until late CY2006. The Project's M&E function was initially rated Unsatisfactory but improved over time, only to decline again during the last 1.5 years of implementation following the departure in June 2010 of the M&E Officer to act as Interim Coordinator for PROADEL.<sup>3</sup> At that time, oversight for M&E in the Project was transferred to the M&E Officer in the PROADEL N'Djamena Unit, who faithfully carried out those duties until PROADEL 1 closed at the end of 2010. Responsibility for the Project's M&E then passed to the former PROADEL 1 M&E Officer, who could devote only part of his time to M&E after joining the PROADEL 2 preparation team.

41. Despite those difficulties, the Project M&E unit conducted several detailed surveys to gauge Project results, generated basic information about Project activities throughout the life of the Project (including the final year of implementation), and successfully commissioned key impact studies. All six annual implementation progress reports were completed on time, based on the corresponding quarterly reports, and they provided valuable information for this ICR. A study designed to assess impact at midpoint issued its findings too late to be considered by the MTR mission. By Project completion, the planned beneficiary survey had been carried out ([Annex 4](#)), and a study on compliance with World Bank environmental safeguard policies was available.

## **(c) Utilization**

42. Data about Project activities generated by the M&E system were used to good effect by Project management and by World Bank supervision teams. The information on subprojects at various stages was used to gauge overall progress of the Project, and it allowed the government and the World Bank to provide direction to Project management. Data produced by the M&E unit were also used to prepare detailed annual work and budget plans (Plan de Travail et Budget Annuel, PTBAs). Combined with financial management information, these plans allowed Project management to take appropriate decisions regarding implementation, such as halting new subprojects to avoid over-commitment of funds.

## **2.4. Safeguards and fiduciary compliance**

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<sup>3</sup> Later confirmed as Coordinator for PROADEL 2, she was also responsible for managing the preparation of the Borrower ICR for CB EMP.

#### **(a) Safeguard policies**

43. Overall, Project compliance with social and environmental safeguards policies was Satisfactory and consistently rated as such by World Bank supervision missions. The Project triggered six World Bank safeguard policies: OP 4.01 (Environmental Assessment), OP 4.04 (Natural Habitats), OP 4.09 (Pest Management), OPN 11.03 (Cultural Property), OP 4.12 (Involuntary Resettlement), and Safety of Dams (OP 4.37). An Environmental Assessment and Environmental and Social Management Framework were prepared prior to the appraisal mission, which recommended that CB EMP should rely on the environmental and social specialists from PROADEL's offices, as well as such specialists working in the other baseline projects. The first CB EMP Project Coordinator, an environmentalist by training, had been in charge of the completion of Chad's NEAP and fully understood the procedures needed to ensure compliance with the various safeguard policies. In retrospect, it is clear that CB EMP was extremely useful in helping PROADEL and the other baseline projects handle environmental management issues and in providing environmental management services for the subproject cycle.

#### **(b) Fiduciary compliance**

44. Project accounts, including special accounts and regional subaccounts, were audited regularly. Auditors' reports noted a few irregularities in some accounts; most were minor and were successfully addressed (except for FY2011). Only one audit report was qualified (for FY2006). The final audit for FY2012 is not yet available.

45. Overall, the performance of the Project's financial management function was mixed. On the one hand, the financial management system, based on TOMPRO software, allowed Project management to subject budget and operational plans to a rigorous financial analysis. On the other hand, the financial management function was beset by delays and difficulties. The availability of funds at various levels was subject to delay. Delayed approval of the annual work plan and budget for 2006 by the Steering Committee restricted the use of government counterpart funds. Delayed payments of counterpart funds in turn delayed payment of service providers. Transfers of funds from N'Djamena to field locations and ACDs were difficult to arrange because financial institutions are scarce in Chad, and a cash-flow bottleneck developed because two Special Accounts had low limits. In October 2011, an in-depth financial review by the World Bank supervision team observed some irregularities and requested remedial action, as did a second review in May 2012 (see section 5.2). As of this writing, actions are still pending in relation to those problems.

#### **(c) Procurement**

46. Every World Bank supervision mission reviewed the Project's procurement function. The performance of the procurement unit in the main Project office was consistently rated Satisfactory, but it was noted that Local Development Committees sometimes failed to follow the required procurement procedures (which stipulated, for example, that bids would be obtained from at least three competing firms). Because of the problems with community-level procurement, the performance of the procurement function is rated Moderately Unsatisfactory.

### **3. Assessment of outcomes**

#### **3.1. Relevance of objectives, design, and implementation**

### (a) Objectives

47. The development objectives were extremely relevant at appraisal and remain so today—namely, to help local communities fight desertification, rehabilitate degraded lands, and protect biodiversity (the PDO) and to promote widespread adoption of farming and resource management practices under the broader umbrella of IEM (the global objective). Lessons from CB EMP continue to be relevant for Chad in promoting sustainable environmental management at the grassroots and ecosystem levels. The Project confirmed the relationship between poverty and IEM, and CB EMP has likely contributed (albeit modestly) to the slight decrease in rural poverty seen since the Project was prepared.<sup>4</sup>

### (b) Design

48. By promoting grassroots IEM within the framework of decentralization, CB EMP aimed to support the government's long-term rural development and environmental strategies. The Project design was appropriate in that it focused in a holistic fashion on all of the prerequisites for implementing decentralized IEM (investments, awareness, legal support, capacity building, management, monitoring, and environmental sustainability). As mentioned, CB EMP's design was modeled on that of PROADEL; the ICR for PROADEL found the design to be sound and recommended that it be maintained for implementing the second phase of its APL.

### (c) Implementation

49. Implementation modalities for the Project were generally appropriate. The roles of the implementing agencies and other partners were established through agreements, and the Project engaged different kinds of entities depending on needs, including public organizations, service providers, and community-based organizations. Given the challenging environment for implementation, the Project adapted its approaches, implementation schedules and strategies to remain relevant. Lessons from the Project implementation experience are clearly relevant for designing new operations responding to environmental degradation in Chad.

## 3.2. Achievement of the GEF Global Environmental Objective (GEO)

50. In assessing whether the Project contributed to the goals of the GEF Operational Program (keeping in mind that there was no explicit requirement to have a different GEO and PDO), it is appropriate to take a broad view and consider achievements as they pertain to the larger environmental context. Based on the evidence (mainly qualitative), the Project made significant progress toward meeting the objective of the global operational program (see [Box 1](#)).

#### Box 1: Project achievements in relation to GEO indicators

In the varied ecosystems of rural Chad, the Project successfully tested and validated the integrated ecosystem management (IEM) approach, as the following evidence indicates:

- The Project successfully established ***decentralized, participatory, and transparent IEM mechanisms***

<sup>4</sup> In 2011, Chad ranked 160<sup>th</sup> of 169 countries in the UNDP Human Development Index; fighting poverty using environmentally sustainable approaches thus remains a leading priority for the government.



in selected zones of the targeted ecosystems. By focusing on community priorities at the grassroots level, these mechanisms made it possible to finance a critical mass of investment subprojects covering a substantial range of IEM activities.

- The Project ***strengthened the enabling environment for environmental actions***. It spearheaded the enactment of key legislation to create several entities central to the regulatory framework for implementing and funding environmental actions. Those same entities promote the research and data collection required for long-term, sustainable rural development and improvements in the livelihoods of rural dwellers, including the most marginalized ones.
- ***Six detailed Ecosystem Management Schemes*** of excellent quality were developed for Chad's diverse environments and are today being used to guide IEM activities in Chad. In addition to a methodology section, they include detailed assessments of flora and fauna in each environment, a prioritized list of constraints, analysis of inter-linkages, and proposals for preventive and/or remedial actions. Given their longer-term planning horizon (10 years), the Ecosystem Management Schemes will serve ecosystem management beyond the scale and duration of the Project.
- ***In aggregate, the Project financed investments and put into motion processes that positively affect, or have built a foundation to affect, the targeted ecosystems***. The Project established an enabling framework for environmental actions and developed best practices for IEM that can be replicated in current and future interventions.

51. The Project financed a critical mass of “win-win” subprojects that met environmental and livelihood needs (see [Box 2](#)). The subprojects made a difference throughout the targeted ecosystems. For example, subprojects designed to protect Lake Léré against further depletion of its fish stocks are already making a significant difference in the fish population. Similarly, reforestation subprojects implemented in the Moundou Basin have increased the fuelwood supply while contributing to the preservation of the wider ecosystem.

#### **Box 2: Integrated ecosystem management “win-win” subprojects**

CB EMP financed “win-win” subprojects that not only addressed villagers' immediate livelihood needs but also helped to resolve broader, long-term issues related to environmental sustainability at the ecosystem level. Three types of subprojects are cases in point:

1. Wells dug to sustain tree nurseries make it possible to grow annual crops to meet villagers' immediate needs. Tree plantations established around the wells provide wood and other environmental benefits in the long term.
2. Micro-dams provide water for everyday agricultural, human, and animal use. The same micro-dams also promote reforestation and help aquifers to recharge.
3. Bottomlands (*bas-fonds*) and wetlands next to rivers are replenished during the rainy season and can be developed for fish farming and vegetable crop production. Robust wetlands can help stabilize river banks and prevent flooding.

### **3.3. Achievement of the Project Development Objective (PDO)**

52. Effectiveness in meeting the PDO is evaluated narrowly (based on the extent to which specific PDO targets were attained) as well as more broadly (based on the composite picture that emerges from the output indicators for each component). On a six-point rating scale (0 to 6 = low to high), this report rates the efficacy of Project

implementation as a 4. By enabling local communities to better fight desertification, rehabilitate degraded land, and protect biodiversity, the Project substantially contributed to restoring Chad's most fragile ecosystems. Annex 2 compares data on achievements against target values.

**(a) Progress achieved against PDO indicators**

53. The Project met or exceeded targets established for the PDO indicators (Box 3). Field visits made by supervision teams and as part of the ICR mission suggest that subprojects protecting nearly 290 hectares from deforestation, land degradation, and bush fires benefited a much larger area, because the practices introduced under the subprojects were emulated elsewhere by local populations, owing to the extensive complementary investments made by the Project in sensitization and training. The same is true of soil fertility improvements and other sustainable agricultural practices, which were tested as best practices in subprojects and promoted extensively in surrounding areas. Progress in reducing species endangerment is less straightforward to assess. Although specific data on the status of endangered plant and animal species were not available from baseline and follow-up surveys, and although general information of this kind is elusive in Chad, habitat protection and regeneration under the CB EMP undoubtedly helped to reduce the level of endangerment for some species. This is particularly true in the case of the habitat protection and regeneration activities financed by the Project around the Binder-Léré Wildlife Reserve (Category IV, 135,000 hectares) and the Mandelia Wildlife Reserve (Category IV, 138,000 hectares).

54. The Project's contributions to improved ecosystem management are likely to be amplified owing to the strategic choice made during the design stage to work in varied and representative ecosystems across Chad. The Ecosystem Management Schemes cover extensive areas in the Sahelian, Sahelo-Sudanian, and Sudanian zones, and they target a wide range of IEM activities. Moyen-Chari, where the Mandelia Wildlife Reserve is located, features semi-humid to humid ecosystems containing critical watersheds that are subject to periodic flooding. Priority actions in Moyen-Chari include biodiversity conservation, erosion control, and hillside protection. Lake Léré, which spans portions of the Guinean and Sudanian zone in the Southwest, features broad floodplains and exposed areas along lakes and rivers, on plateaus, and on mountains; within national parks, the landscape tends to be more heavily forested. Priorities in the Lake Léré area relate to watershed management, reforestation, protection of watercourses, management of fish stocks, and protection of wildlife (including megafauna such as elephants, hippos, and crocodiles). Abdi, situated to the East in the climactic Saharan zone, is isolated, rugged, and mountainous in places, crossed by several seasonal rivers and under threat of desertification and soil degradation. The Bahr el Ghazal area, located in the Northwest, is characterized by plateaus, sand dunes, and wadis. Priority actions in both of these areas revolve around desertification, migration of dunes and silting of wadis; they include promotion of soil fertility management practices, strengthening of agro-forestry-pastoral activities, and ensuring access to water. Because the targeted ecosystems present such a broad range of problems, the IEM practices embedded in the various Ecosystem Management Schemes constitute a rich tool kit of potential interventions covering virtually all regions of the country.

**(b) Progress against output indicators**

55. The Project met and in many cases exceeded output targets for all of the individual components (Box 4). Most notably, under *Component 1*, the target for completed subprojects was exceeded by 232 percent. The average contribution made by local communities to the cost of subprojects was about 19 percent, greatly exceeding the 5 percent minimum that was required and signaling strong local ownership of the subprojects. This contribution is an important measure of success, although it was never established as a formal output indicator. Both the IEM guide and Ecosystem Management Schemes developed under *Component 2* were high-quality documents that are still in use. They were thoroughly reviewed by the CB EMP Technical Review Committee, exemplifying the important positive role played by this committee throughout the life of the Project. An indicator set at appraisal for *Component 3* called for 25 percent of Local Development Plans prepared under the baseline projects to address IEM issues. Although no data were collected under the baseline projects to verify whether this target was met, preliminary evidence suggests that all such Local Development Plans duly addressed environmental issues, including IEM issues, as set forth in the Project Implementation Manual. Under *Component 4*, indicators relating to land degradation and biodiversity conservation were to be integrated into the rural development monitoring system under PIDR; the indicators are under preparation as part of ONAREN's work program.

**Box 3: Project achievements in relation to PDO indicators**

- ***Area protected against deforestation, land degradation, and bush fires.*** No target was specified for this indicator. Subprojects fully protected about 289 hectares, and field visits to subproject zones reveal that there has been significant technology spillover into neighboring areas. Overall, this achievement is considered substantial.
- ***Sustainable management of fuelwood supply at the village level in the Moundou Basin watershed.*** The target was exceeded. About 64 villages benefitted from assistance in managing fuelwood supplies, compared to the target of 50 villages set at appraisal (128 percent of the target).
- ***The level of endangerment of endemic mammals, birds, and plant species reduced by at least one category in GEF priority zones.*** Qualitative evidence supports a strong positive impact of the Project on endemic fauna and flora. Achievements could not be quantified, however.
- ***Sustainable environmental monitoring and data management systems for the rural sector.*** The National Observatory for National Resources (ONAREN), recently created under the Project, is completing this task.
- ***Incremental adoption of soil fertility improvements and other sustainable agricultural techniques.*** The target was exceeded. Sustainable practices were adopted on as estimated 30 percent of the targeted areas (120 percent of the target of 25 percent).

**Box 4: Project achievements in relation to output indicators for each component**

- ***Component 1.*** At mid-term, half of the target for completed subprojects had been met (10 subprojects completed); by the end of the Project, 116 subprojects (232 percent of the target) had been completed.
- ***Component 2.*** At mid-term, 90 percent of the targeted number of formal training sessions had been held and an integrated ecosystem management (IEM) guide had been prepared as a formal Project output (in 2006). By the end of the Project, six Ecosystem Management Schemes had been developed (twice as many as targeted). Qualitative evidence suggests that most Local Development Plans include reference to IEM issues, although no data were collected on that indicator.

- **Component 3.** All planned laws and decrees on forest and natural resource management were issued (100 percent of target), including the decree establishing the National Fund for the Environment. Training sessions for MERH staff exceeded the target by 40 percent.
- **Component 4.** Annual and quarterly progress reports issued by the Monitoring and Evaluation Unit exceeded the target (109 percent). The number of contracts stands at 90 percent of the target. The feasibility study for the National Observatory for Natural Resources (ONAREN) was completed, and ONAREN is developing indicators for the Rural Development Support Program (PIDR).

### **3.4. Efficiency**

#### **(a) Overall project implementation efficiency**

56. On the same six-point scale, this report rates the efficiency of Project implementation as a 4. Most Project funds were spent efficiently. Subproject investments financed under Component 1 accounted for 44 percent of the total amount disbursed of GEF funds (98 percent of the amount estimated at appraisal). The efficiency of those investments, given their pilot nature, is Satisfactory (see the next paragraph and Annex 1, which reviews Project expenditures). Component 4 (management and monitoring support) accounted for about 19 percent of Project expenditures (122 percent of the appraisal estimate). While the 19 percent figure may seem high, it should be remembered that only one of the three subcomponents under Component 4 was related directly to project management. A second subcomponent supported M&E costs, and a third subcomponent supported costs related to the monitoring of ecosystem management at the national level. That said, it must be acknowledged that operating expenditures recorded by the Project Management Unit were inflated by the implementation delays that occurred throughout the life of the Project, by the interruptions caused by the suspensions of the World Bank's programs in Chad, and by the three extensions of the closing date.

#### **(b) Efficiency of subproject implementation**

57. As noted, an efficiency analysis of Project-supported investments was not done at appraisal. The reason an efficiency analysis was not done is that benefits attributable to the Project could not be defined until the Project was under way and the beneficiary communities had decided which subprojects they wished to pursue. Most activities likely to be financed under the Project produce benefits that are difficult to quantify in economic terms, such as community empowerment, strengthened capacity, improved governance, and enhanced livelihoods. Even now, when subproject activities are known, quantification of benefits remains problematic. This explains why no quantitative cost-benefit analysis was done for this ICR. Observations made during recent field visits suggest, however, that many subprojects are yielding positive impacts and that benefits continue to accrue.

58. Communities procured goods and services on a competitive basis, using the World Bank's simplified bidding procedures to identify least-cost alternatives for subproject expenditures. The ICR team's investigation suggests that Project resources were used efficiently—more efficiently than a superficial analysis would indicate. For example, the ICR team compared the average cost of tree planting subprojects, which represent about one-third of the subprojects financed under CB EMP, to the cost of tree planting subprojects financed under another program. Tree planting subprojects financed under CB EMP cost roughly 50 percent more on average than the comparator subprojects, but the CB EMP approach included many activities that were not financed under the

comparator subprojects, such as information dissemination, community sensitization, and capacity building at the grassroots level. Those activities generated considerable spillover benefits that are difficult to quantify.

59. It is also vital to consider that many subprojects financed under CB EMP were pilots, designed to test and demonstrate innovative management techniques, such as strategies to combine tree planting with water harvesting. In these pilot subprojects, additional costs associated with trial-and-error experimentation were incurred in return for the new knowledge produced.

60. In line with GEF requirements, the PAD included a detailed incremental cost analysis and calculated the difference between the cost of the baseline project and the cost of the proposed CB EMP. The total incremental costs for the CB EMP were estimated at US\$7.87 million, of which the GEF contribution would be US\$6.00 million. In other words, at a relatively limited incremental cost, CB EMP would deliver benefits in the form of new knowledge and grassroots impacts that would inform and amplify efforts under the baseline project.

### **3.5. Justification of overall outcome rating**

*Rating: Moderately Satisfactory*

61. The overall outcome of the CB EMP is assessed based on the three considerations discussed throughout this section: the Project's relevance, the extent to which it achieved or is expected to achieve the development objective, and the efficiency with which Project resources were used.

62. **Relevance.** The CB EMP was and continues to be a highly relevant project. Incorporating sustainable ecosystem management practices into rural development strategies, promoting decentralization, and strengthening local capacity to carry out sustainable long-term rural development is critical in a country such as Chad, where environmental threats are particularly acute, especially in a context of climate change, increasing population pressure, and persistent rural poverty. The Project's relevance is further substantiated by continued high demand from communities for IEM; renewed government prioritization for IEM to combat land degradation; and the incorporation of the lessons, tools, and approaches of CB EMP in the new GEF and World Bank PAPAT project. Based on this evidence, the Project's relevance is rated *Satisfactory*.

63. **Efficacy.** The CB EMP substantially achieved its development objective and met or exceeded most of its targets. It recorded significant accomplishments, especially with respect to piloting strategies for IEM by communities in fragile ecosystems. The most significant substantive deliverables exceeded targets, notably 134/232 percent for subproject delivery (Component 1); 200 percent for ecosystem management schemes (Component 2); 140 percent for training and awareness raising, 120 percent for IEM techniques, and 128 percent for sustainable forest management (Component 3). On this basis, effectiveness is rated *Moderately Satisfactory*.

64. **Efficiency.** Project implementation was challenged by a range of factors, some considerably outside the control of the Project management team, which contributed to uneven performance across Project activities. Yet despite the uneven performance, the Project managed to deliver results in a cost-effective way. Under Component 1, which accounted for 44 percent of Project resources, the number of investment subprojects implemented at the community level exceeded targets by 134 percent and 232 percent,

and achievements were substantial with respect to the number of hectares protected and the proportion of targeted beneficiaries who adopted sustainable agricultural techniques. Methods used to procure goods and services for those subprojects suggest that resources were used efficiently. Component 2, which accounted for 17 percent of Project resources, funded not only twice the expected number of EMS (200 percent), but also the inclusion of IEM in twice the expected number of LDPs (200 percent). Component 4, which accounted for 30% of Project resources, not only successfully supported management and supervision of Project activities in six dispersed zones, but it also paid for a number of feasibility studies, and it financed monitoring of ONAREN (which really should have been financed under other components devoted to capacity-building). Based on the impressive results generated under components representing the greater part of Project funds, efficiency is rated *Moderately Satisfactory*.

65. Taking into account all of these considerations, the overall outcome is rated *Moderately Satisfactory*.

### **3.6. Overarching themes, other outcomes, and impacts**

#### **(a) Poverty impact, gender aspects, and social development**

66. **Poverty impact.** Since poverty mitigation was not a primary objective of CB EMP, it was assumed that secondary sources rather than specialized surveys paid for by the Project would provide data on poverty at the macro level. In the event, those sources proved unreliable. At the micro level, the Project clearly improved the livelihoods of its target populations. It also probably had a more general impact on poverty through its wide promotion of IEM activities and environmentally sustainable development strategies, with attendant improvements in livelihoods.

67. **Impact on women, youth, and other vulnerable groups.** The PAD indicated that “women, youth, transhumant herders, and other underprivileged groups would be actively targeted.” CB EMP was instrumental in promoting the welfare of women and in improving their status in the communities where it operated. All of the 123 subprojects financed under the Project had both men and women members and beneficiaries. Subprojects to develop micro-dams, bottomlands, and ponds had important benefits for activities typically performed by women, such as vegetable production. The many subprojects that improved access to water, including tree planting subprojects that built wells for tree nurseries, also made it easier for women to fetch water for household use. ACDs always had several women members, and seven subprojects were in the hands of ACDs fully controlled and managed by women. Women participated on Project committees at all levels; two key Project staff members, the Environmental Specialist (Project Coordinator) and the M&E specialist, were women.

68. Youth were very well represented in ACDs. Transhumant herders also participated actively in ACDs for subprojects dealing with pasture management, safe passage corridors for cattle, and improved water points, particularly in Sahelian areas where the project worked (Abdi and Amdam zones). In other areas, herders benefitted from micro-dams, which provided water for animals year round.

#### **(b) Institutional change/strengthening**

69. Aside from supporting preparation of laws and decrees on forest and natural resource management, the Project made an important contribution to the government’s

development efforts by serving as a model for decentralized IEM. Processes and procedures introduced under CB EMP were used to incorporate environmental management into Local Development Plans, select priority environmental investments, and take related investment decisions through the baseline projects, all in a participatory manner. These processes and procedures are currently being used, not only in the critical ecosystems targeted by the Project, but also in other regions, particularly through the nationwide extension of PROADEL and the implementation of the recent World Bank-funded Agricultural Production Support Project in Chad (Projet d'Appui à la Production Agricole au Tchad, PAPAT), which includes support from the GEF and the Least Developed Countries Fund (LDCF). These projects are the main conduits for following up on activities initiated under CB EMP.

70. The Project also strengthened capacity in the central institutions responsible for its implementation (MERH in particular received training and material support). Participating agencies in the regions benefited from capacity building for staff and the modernization of communication and other equipment, and the newly created ONAREN was equipped through Project support. Every group of stakeholders contacted for the beneficiary assessment agreed that, without CB EMP and the baseline projects through which it was implemented (particularly PROADEL), the government's efforts to promote decentralized ecosystem management would not have made nearly as much progress.

#### **(c) Other unintended outcomes and impacts**

71. Component 4 included funds to support the Permanent Monitoring and Coordinating Unit of PIDR in completing sustainable environmental monitoring and data management systems for the rural sector. ONAREN, recently created under CB EMP, was responsible for that activity, given its mandate to define and track indicators related to land degradation and biodiversity. ONAREN is expected to complete and monitor those indicators as an immediate priority, as soon as it is fully operational.

### **3.7. Summary of findings of beneficiary survey**

72. A survey administered in December 2011 to a representative sample of Project beneficiaries in all five Project sites included ACD leaders and members, representatives of decentralized structures of line ministries, local government authorities, and service providers involved in the Project. Results are presented in [Annex 4](#), and key findings are summarized next.

#### **(a) Subproject results**

73. Beneficiaries generally expressed very favorable opinions of subproject benefits, both in relation to their long-term impacts in the locality as well as near-term benefits for livelihoods. Beneficiaries rated the Project's performance as follows:

- **Relevance.** The majority of respondents (65 percent) judged subprojects to be highly relevant, because they responded to beneficiaries' real need to reverse local environmental degradation and sustain the land's productive capacity.
- **Efficiency.** The majority of respondents (54 percent) believed that subprojects were properly sized and that funding was adequate.
- **Impact.** A significant proportion of respondents (44 percent) thought that subprojects had a visible impact on their immediate environment by reducing soil

degradation and conserving biodiversity. About 39 percent of the respondents felt that an added benefit of subprojects was a highly positive impact on food security.

#### **(b) Capacity building and technical support**

74. Project-supported training was widely appreciated by beneficiaries. Half of the respondents believed that training was extremely beneficial; this opinion was consistent across training activities. Respondents held more divergent views on decentralized technical training (51 percent thought the sessions were good, 25 percent thought they were poor). Community-based associations highly appreciated training in financial management (64 percent) and procurement (48 percent), areas in which they had very little expertise. Communities also indicated that they received adequate information on CB EMP implementation, especially with regard to the matching grant program for subprojects and the formation of ACD development committees.

#### **4. Assessment of risk to development outcome**

*Rating: Moderate*

75. Risks to the development outcome and sustainability of project achievements are assessed as Moderate, based on the technical, institutional, economic/financial, social, environmental, and political criteria discussed briefly in the following sections.

##### **(a) Decentralized integrated ecosystem management**

76. The government's commitment to continued decentralization is clear, particularly in regard to IEM. What is less clear is the financial capacity of central and decentralized government structures to sustain the services initiated by CB EMP and the baseline projects. An important legacy of CB EMP was to mitigate this risk by:

- Establishing a legal and regulatory framework for IEM.
- Piloting and demonstrating successful IEM approaches at the grassroots level in a comprehensive manner that included technical, financial, and operational guidance and procedures, as well as lessons to support replication in other ecosystems.
- Building institutional capacity from the local to national level in areas targeted by CB EMP and the baseline projects.

77. The challenge of implementing IEM throughout Chad's fragile ecosystems is considerable, but a number of factors could sustain and even expand upon the Project's achievements. External factors include rising national oil revenues and the government's improved tax collection capacity, which should permit the government to allocate a larger share of the national budget to decentralized environmental management, in line with national priorities and strategies. Factors more closely related to CB-EMP should also play a role in extending its legacy throughout Chad, particularly the second phase of PROADEL and the new Agricultural Productivity Support Project. The risk that decentralized IEM spearheaded by CB EMP will not be used nationwide is therefore regarded as Moderate, even when funds from sources other than the World Bank are not considered.

##### **(b) Viability of subprojects**



78. The risk that subprojects will not remain viable is assessed as Moderate. The beneficiary and impact assessment study concluded that most subproject activities financed under CB EMP will likely remain viable, for two reasons. First, the subprojects were designed to generate long-term benefits for the environment as well as short-term economic resources for communities—an important consideration given the high levels of poverty that prevail in rural Chad. Second, across all types of subprojects, community ownership and participation are high. Communities have diligently mobilized their own resources (often well beyond the minimum level required) to implement subprojects, probably because the subprojects were developed with local participation and respond directly to local priorities. Communities have also created local committees to oversee subproject implementation and subsequent maintenance.

79. Beneficiaries cautioned, however, that the viability of subprojects also depends on sustained technical support for communities from decentralized line ministries and local service providers. Government structures have received support from CB EMP (facilities, training), but they rely on national resources to carry on their operations. Subproject funding remunerated service providers, who must now be remunerated by government funding or the communities themselves. The communities will be hard pressed, in the short term, to generate sufficient cash to remunerate private service providers. The major investments have been made, however, and funds are needed mainly to maintain them. The government should earmark budget resources for decentralized IEM services and private service providers.

**(c) Existence of a cadre of experienced staff**

80. A significant share of CB EMP resources was used to build capacity in government agencies and private enterprises, both at the local level and at the national level, resulting in a cadre of staff with expertise in IEM implementation. This important stock of human capital needs to be preserved and expanded. The IEM training manuals and procedures developed during the Project will be useful for that purpose. It is also expected that resources will be made available for capacity building through donor-funded projects, including PROADEL2 and PAPAT. The risk that experienced staff will be unavailable for subsequent IEM activities is therefore evaluated as Low.

**(d) Other risks**

81. All other risks (social, environmental, and stakeholder commitment) are considered negligible.

**5. Assessment of World Bank and Borrower Performance**

**5.1. World Bank performance**

**(a) World Bank performance in ensuring Quality at Entry**

*Rating: Moderately Satisfactory*

82. The World Bank team that designed the Project drew on experience from similar projects implemented in other countries, including neighboring Niger. Consistent with World Bank policies at the time, the project design was not subjected to a formal quality-at-entry review. The appraisal mission benefitted from the earlier appraisal of PROADEL and its ongoing startup activities. The team considered alternative lending instruments but eventually chose a SIL (not an APL), in line with GEF practices at the time. In opting for

a community-driven development approach, the Project embraced the government's decentralization strategy, which was also fostered through PROADEL. Project objectives were also highly relevant to government poverty reduction strategies at the time of preparation, and the components, based on the design of PROADEL, were appropriate.

83. A particularly challenging design problem was how to ensure an appropriate trade-off between breadth of Project coverage and intensity of implementation support. CB EMP wanted to test its approach across a sufficiently diverse area to generate the robust knowledge base needed to inform subsequent efforts on a wider scale. For that reason, covering a range of large ecosystems was justified, but it complicated the coordination of support activities and almost certainly added to the cost of implementation.

84. The risk assessment carried out at appraisal was generally appropriate. Nevertheless, some of the challenges posed by implementing a new type of project in the Chadian context could have been more fully appreciated: the large size of the country, the weakness of decentralized government agencies, and the lack of technical expertise. The decision to phase the startup of activities over a two- to three-year period was practical, but the implementation strategy should have emphasized more intensive training and guidance at all levels to compensate for the lack of expertise in the early years. Finally, although the M&E manual was prepared well before appraisal, the M&E system was overly ambitious in seeking to collect baseline data during implementation, which turned out to be challenging.

#### **(b) Quality of supervision**

*Rating: Moderately Satisfactory*

85. World Bank task teams carried out nine supervision missions during the life of the Project ([Annex 5](#)), except during periods when World Bank operations in Chad were suspended. Those missions generally occurred in tandem with supervision missions for PROADEL until that project closed. ISRs and extensive aides mémoire recorded the main findings of the missions and provided adequate guidance to improve implementation. The supervision teams systematically followed up with government officials and Project management to address outstanding issues. Generally speaking, the supervision teams included a suitable mix of specialized skills (one to three World Bank staff from Washington or field offices and/or external consultants with specialized expertise). Representatives of government ministries and agencies participated in all supervision missions.<sup>5</sup> The MTR mission generated a series of recommendations that led to proposed revisions to the PDO and some performance indicators.

86. The performance ratings recorded in the initial ISRs appear somewhat lenient, reflecting the consensus that time was needed to get this new type of project off the ground.<sup>6</sup> Ratings changed, however, as evidence of flagging implementation emerged. Supervision teams are credited for recognizing problems and taking proactive measures to address them. The 2008 Quality Assessment of the Lending Portfolio rated supervision as Moderately Satisfactory on account of the close attention to management issues and good supervision of social and environmental aspects in the difficult circumstances in Chad at the time.

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<sup>5</sup> Usually these were officials from MERH and MATUH.

<sup>6</sup> During 2006 and part of 2007, Progress toward Achievement of the PDO was rated Unsatisfactory under a management directive applying to all World Bank projects in the country. World Bank operations in Chad remained suspended during that period.

87. Supervision did not resolve delays in preparing Ecosystem Management Schemes, however. Supervision teams regularly flagged the delays, but effective action was not taken to accelerate their delivery.

**(c) Justification of rating for overall World Bank performance**

*Rating: Moderately Satisfactory*

88. Based on the relevance of the development objectives, the general soundness of the Project's design, and considering that the supervision effort substantially met its objectives despite minor shortcomings, overall World Bank performance is rated as Moderately Satisfactory.

**5.2. Borrower performance**

**(a) Government performance**

*Rating: Moderately satisfactory*

89. The Government of Chad was strongly committed to CB EMP. It was keenly aware that the Project was designed to complement the decentralized community-development efforts under PROADEL. Because the Project represented a major piece of the national rural development strategy, the government prepared the Project paper using its own staff and consultants, supported in part by GEF Project Development Facility funding. Leadership of the preparation process was provided by a high-level special committee, similar to the one convened to oversee preparation of PROADEL. The government also recognized that implementation of the Project would generate the information base and hands-on experience needed to inform the design of an environmentally sustainable rural development strategy in Chad's critical fragile ecosystems.

90. The government made a number of important contributions during Project implementation:

- It established the committee in charge of project implementation.
- It instructed two key ministries (MERH and MATUH) to support the Project, particularly its field activities.
- It released staff from those ministries to participate in project-financed training.
- It provided most of the agreed counterpart funds, particularly during Project startup (when Project activities were supported with counterpart funds alone).
- It assigned staff to participate in all Project supervision missions, and on occasion it fielded its own supervision missions.

91. These positive contributions were countered by the following shortcomings:

- Project effectiveness was delayed by nine months due to delays in meeting the effectiveness conditions.
- Throughout the life of the Project, delays in paying counterpart funds made it difficult to implement certain disbursement categories where government financing was required (this was a recurring issue for all projects in Chad).
- At ICR drafting (June 26, 2012), about US\$680,000 in GEF grant funds remain undisbursed.

- As of this writing, the government had not yet resolved the pending financial issues.

## **(b) Implementing agencies' performance**

*Rating: Moderately Unsatisfactory*

92. The CB EMP Coordinating Unit was the main agency in charge of implementing the Project. The Unit was supported by the PROADEL Management Unit (in the national headquarters and three regional offices) and, to a lesser extent, by the regional units of other baseline projects. These entities made important contributions to the successful implementation of CB EMP:

- They organized sensitization campaigns to disseminate information about the Project, particularly information about the matching grant program. These campaigns were critical for securing the active participation of stakeholders and beneficiaries.
- They successfully promoted and financed a large number of field activities for CB EMP, including training of MERH and MATUH staff members and other stakeholders in the regions (with the help of field-based staff from PROADEL and other baseline projects and service providers recruited by the Project).
- They financed conceptual and operational studies to inform the design of IEM activities, prepared the legal and regulatory documents required to establish the legal framework for their implementation, and organized workshops and publicity campaigns to share information on the Project's progress.

93. In certain areas, however, insufficient attention from Project management created a number of difficulties for implementing the Project:

- The long delay in recruiting a second Project Coordinator slowed implementation.
- The M&E Specialist position remained vacant during the last 18 months of the Project, which disrupted the M&E function.
- Payments to NGOs and technical service providers for completed work were often late.
- Financial irregularities detected in late 2011 led to an in-depth financial review in May 2012, which rated financial management Unsatisfactory and the related risk high. Weaknesses identified include a lack of supervision and control of funds made available to village communities, inadequate management of counterpart funds, non-compliance with procurement rules, and insufficient justification of expenditures. The review requested the Government of Chad to reimburse ineligible expenditures and to provide evidence for other miscellaneous expenses within one month of receipt of the report. Consequently, these actions will not be completed in time for inclusion in the ICR.

## **(c) Justification of rating for overall Borrower performance**

*Rating: Moderately Satisfactory*

94. Taking into account the Government's relatively solid performance in supporting the preparation and implementation of the Project, as well as the performance of the

implementing agencies (which substantially carried out their assigned roles despite the shortcomings noted), overall Borrower performance is rated Moderately Satisfactory.

## **6. Lessons learned**

### **(a) Community-based IEM can address both short-term development needs and long-term environmental needs**

95. The Project was meant to test and implement the IEM approach in fragile ecosystems in areas of rural Chad where poverty is very high. Most IEM investments require the long-term participation of beneficiary communities, because the environmental benefits typically take time to realize. In countries like Chad, it is difficult to sustain any type of investment if it does not generate immediate benefits for communities. The Project demonstrated that IEM investments can meet two potentially conflicting requirements: responding to short-term local development needs at the community level, and addressing long-term environmental challenges at the broader ecosystem level (examples were listed earlier in [Box 2](#)).

### **(b) Success of multi-sectoral projects depends on effective collaboration among implementing agencies**

96. Since CB EMP was complementary to PROADEL, the overall institutional responsibility for CB EMP was vested in MATUH, which became responsible for: (i) consistency of project execution with contractual documents (Development Grant Agreement; Implementation Manual; Administrative, Accounting and Financial Manual; M&E Manual; Procurement Plan); and (ii) the completion of financial management reports and annual audits. MERH was accountable for technical quality through CB EMP's Scientific and Technical Committee. Those arrangements worked fairly well, in the sense that CB EMP benefitted from PROADEL's administrative, financial, and operational setup and capabilities. To some extent, however, MATUH viewed CB EMP as an "add-on" to PROADEL and CB EMP implementation as secondary to PROADEL's priorities. Staff of the other baseline projects and World Bank supervision teams may have held similar views. The fact that MATUH was given institutional responsibility for a project that MERH regarded as falling under its own mandate was not conducive to full cooperation.

### **(c) Success of GEF operations can be enhanced by effective blending of GEF and IDA resources**

97. Some of the implementation problems discussed in this report arose from the status of CB EMP as a stand-alone GEF operation that was nevertheless regarded as an appendage of PROADEL. As conceived, CB EMP was supposed to work seamlessly with PROADEL, but the procedures for preparing the two operations differed, and as a result PROADEL was approved a year before CB EMP.<sup>7</sup> In hindsight, it is unclear why the CB EMP and PROADEL were not treated as partially blended operations, with different PADs but the same ISRs and ICRs. That approach could have provided more incentives at all levels to ensure that CB EMP could rely fully on PROADEL and the other baseline projects for execution of activities in a mutually beneficial manner. In hindsight, it is

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<sup>7</sup> In PAPAT, community-based integrated ecosystem management activities are an integral part of the project design (there is a specific project component), and the GEF/LDCF Grant is fully blended with the IDA Credit. Under the CB EMP, the GEF grant was processed as a separate operation.

clear that when GEF operations are prepared as stand-alone projects, it is important to put in place implementation arrangements under which responsibilities at the local level are clearly spelled out. Experience suggests that this can be done; for example, PRODALKA and PRODABO (both GTZ-supported) and PSAOP developed an operating agreement.

**(d) Ensuring the sustainability of IEM requires sustained commitment of resources**

98. Ensuring the sustainability of the community-based IEM approach requires sustained technical, financial, and administrative support that cannot easily be provided through a single project. Many actors are involved, and funding must be provided for many different activities, such as sensitizing the population on environmental linkages, formulating subprojects, managing the subproject approval process, contracting service providers, constructing facilities, transferring funds, and properly maintaining facilities once investments have been completed. This level of support is particularly challenging in poor or isolated rural areas, where public services and institutions are often limited or nonexistent. CB EMP has shown that environmental investments can deliver considerable benefits in the long term, but funds are required not only for local investments but for establishing and sustaining the public administrative structures that provide technical and administrative support.

**(e) Capacity building in support of IEM must address a range of technical and administrative needs**

99. All CB EMP stakeholders stressed the importance of broad-based and continued capacity building. The Project disseminated a great deal of information and provided a substantial amount of training ([Annex 2](#)), which enabled communities to organize themselves, identify their own development priorities, prepare their development plans, and develop investment subprojects. Training was also instrumental for central and decentralized structures of MERH, as well as for local government administrations in the project regions, to strengthen their capacities and hence their ability to provide the technical support required by rural communities.

100. To consolidate the achievements of CB EMP, a modicum of training will need to continue. Beyond technical support, broad-based training, and sensitization, follow-up activities will need to emphasize more specialized training in certain areas, for instance to build communities' capacities to manage subproject procurement, contracting, and financing arrangements. Many local ACDs were initially unfamiliar with competitive bidding procedures such as those required to select service providers.

**(f) Competency in Project management is vital**

101. The presence of experienced project management staff, working as a team, is especially critical when the circumstances are as consistently demanding as they were for the CB EMP in Chad. Innovative and complex operations such as IEM projects supporting local and participatory development, people with experience in similar assignments and proven track records should be selected. Chad possesses a small pool of such experienced project managers and other senior experts. Staff should be selected among this cadre following transparent, merit-based, competitive procedures. Such transparency was lacking in selecting the second Project Coordinator for CB EMP.

**(g) Monitoring and evaluation systems must take into account data availability and local capacity constraints**

102. The M&E system envisioned for CB EMP was ambitious (as it is in many projects), requiring frequent reporting and the use of specific data collection tools. In a country such as Chad, data and information are difficult enough to collect for ordinary purposes, let alone for complex M&E efforts. As M&E activities are designed and implemented, projects should concentrate on core data and critical information required for day-to-day project implementation. For more general, impact-oriented indicators, special studies should be carried out, at periodic intervals. The CB EMP management should be commended for having implemented most of those specific studies, but fully effective project management would have required more concrete indicators with quantified targets for each project-funded component and subcomponent. A worthwhile attempt was made during the MTR to prepare such indicators, but as noted, they could not be implemented.

**(h) Vulnerable and under-represented groups can fully participate in integrated ecosystem management**

103. Encouraging vulnerable groups, such as women and youth (as well as other under-represented groups, like herders in the case of Chad), to participate actively in CB IEM subprojects can effectively empower these groups, improve their livelihoods, and enhance their status in society. The Project actively promoted participation by women and youth, which enabled both groups to improve their living conditions and status. Training in CB EMP almost always included women, and the involvement of vulnerable groups was a condition for subproject approval. For example, subprojects dealing with pasture management and cattle corridors had to involve the participation of herders.

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

**Borrower/implementing agencies**

104. Comments by the Borrower on the draft ICR (French version) were received by letter from the General Secretary of the Ministry of Territorial Development, Urbanism and Habitat, dated 26 June 2012. The Borrower expressed appreciation for the quality of the document, noted that it accurately presents the achievements and the results of the CB EMP, and confirmed that the challenges encountered during implementation have been well summarized.

105. The Borrower further noted some lessons learned. It was pointed out that the complex institutional framework adversely affected implementation; because the Steering Committee was not able to fully carry out its role, the activities supported under CB EMP were not always well coordinated with the activities supported under baseline projects financed by IDA and by German Cooperation.

106. The Borrower concluded by reaffirming the commitment of the Government to include protection of the environment as one of the key pillars of the national development strategy, and it pledged to address the shortcomings highlighted in the ICR in future Project operations.

107. The Borrower's ICR was not available by the time of submission of this ICR.

**Cofinanciers**

Comments were sought from cofinanciers, but none had been received by the time of submission of this ICR.





## Annex 1: Project Costs and Financing

### (a) Project Costs by Component <sup>1</sup>

Components	Appraisal estimate, (CFAF billion) <sup>2</sup>	Disbursements Latest Estimate (CFAF billion) <sup>3</sup>	Percentage of Appraisal
<u>Component 1</u> : Financial support for community-based ecosystem management subprojects	1.25	1.35	108%
<u>Component 2</u> : Capacity building for integrated ecosystem management	0.80	0.53	66%
<u>Component 2</u> : Support for enabling environment for community-based ecosystem management	0.35	0.25	71%
<u>Component 4</u> : Management and monitoring support	0.6	0.92	153%
<b>Total project costs</b>	3.00	3.05	102%

### (b) GEF Financing

	Appraisal estimate (US\$ million)	Disbursed Latest Estimate (US\$ million) 3/	Percentage of Appraisal
GEF financing	6.00	5.32	89%
Physical Contingencies	0.00	0.00	---
Price Contingencies	0.00	0.00	---
<b>Total GEF financing</b>	6.00	5.32	89%

Source: PROADEL Accounting Unit.

<sup>1</sup> Project accounts have been kept only in CFAF, and an attempt to convert the amounts used for different components into US dollars in retrospect would be inaccurate because of the varying exchange rates over the project period and because no records have been kept on the past exchange rates. The fourth column provides an estimate of the percentages of funds planned and funds used for different components. These costs do not include the contributions of local communities, which were made in part on the basis of labor and materials (in kind) and not in cash.

<sup>2</sup> The US dollar amounts in the PAD have been converted into CFAF using the original exchange rate of CFAF 500 to US\$1.

<sup>3</sup> Actual disbursed amount from the monthly report of the Bank's Disbursement Department. This slightly exceeds appraisal estimates due to exchange rate fluctuations.

**(a) Total Financing 4/**

Source of Funds	Type of Financing	Appraisal Estimate	Actual/Latest Estimate	Percentage of Appraisal
<b>DIRECT FINANCING (CB EMP project)</b>				
<b>CFAF billion</b>				
• Government of Chad	Counterpart	0.80	0.66	83%
• Local Communities	Counterpart	0.11	0.29	264%
• Global Environment Facility	Grant	3.00	2.54	85%
<b>TOTAL DIRECT</b>		<b>3.90</b>	<b>3.49</b>	<b>89%</b>
<b>OTHER FINANCING (Baseline Projects)</b>				
<b>US\$ million</b>				
• Government of Chad	Counterpart	17.1	15.44	90%
• Local Communities	Counterpart	3.4	1.75	52%
• Germany (GTZ) (PRODELKA & PRODABO)	Grant	22.00	22.00	100%
• France (AFD)	Grant	5.45	4.8	88%
• IDA (PROADEL, PSAOP)	Credit	39.76	46.56	117%
<b>TOTAL OTHER</b>		<b>87.71</b>	<b>90.55</b>	<b>103%</b>

**a) Disbursements by categories**

Category	Description	Disbursed (CFAF billion)	%
1	Supplies and equipment	0.16	5
2	Consultant services and audits	0.77	25
3	Training workshop	0.20	7
4	Subproject grants	1.34	44
5	Operating expenditures	0.58	19
<b>TOTAL</b>		<b>3.05</b>	<b>100</b>

Source: PROADEL Accounting Unit (direct financing) and PAD (other financing).

<sup>4</sup> Total financing includes the estimated and actual contribution of village communities to subproject investments. These contributions were made both in cash and in kind.

## Annex 2: Project Targets and Results by Component

### 2.1 Targets and achievements vs. performance indicators<sup>8</sup>

Global Environmental Objectives (GEO) Indicators	Target	Comment	
Improved stability and functioning of critical, globally significant ecosystems targeted by the Project	No targets	As a GEF stand-alone operation, the Project is <i>not</i> expected to have both a PDO and a GEO. The GEO and related indicators appearing in the PAD text refer more to the overarching goal of the GEF operational program to which the Project contributed, rather than to a specific goal of the Project. The ICR therefore focuses on the achievement of the PDO and the related indicators as basis for assessment.	
Interest of communities and other actors not directly involved to replicate and get involved in GEF activities	No targets		
Project Development Objective (PDO) indicators	Target	Achievement (Outcome)	Achievement as % of target
The GEF project's development objective is to restore some of the Recipient's most fragile ecosystems by enabling local communities to better fight desertification, rehabilitate degraded lands, and protect biodiversity.	<ul style="list-style-type: none"> <li>Number of hectares protected against deforestation, land degradation, and bush fires (No target indicated)</li> </ul>	289 ha <sup>9</sup>	Substantial
	<ul style="list-style-type: none"> <li>At least 50 villages in the Moundou fuelwood supply basin sustainably manage their wood resources</li> </ul>	64 <sup>10</sup>	128%
	<ul style="list-style-type: none"> <li>Level of endangerment of endemic mammals, birds, and plant species reduced by at least one category in GEF priority zones (flora, fauna to be determined in baseline diagnostics and surveys, M&amp;E plans)</li> </ul>	No baseline	Qualitative evidence supports the outcome of strong positive impact on endemic fauna and flora
	<ul style="list-style-type: none"> <li>Durable environmental monitoring and data management systems for the rural sector</li> </ul>	ONAREN to prepare indicators for environmental monitoring (see Component 4)	100%
	<ul style="list-style-type: none"> <li>Incremental adoption of soil fertility improvement and other sustainable agricultural techniques (e.g., direct seeding) in 25% of targeted areas</li> </ul>	Techniques adopted in 30% of targeted areas	120%

<sup>8</sup> Data provided by the PROADEL Monitoring and Evaluation Unit.

<sup>9</sup> This is strictly the area covered by the subprojects. "Spillover"/replication effects are not taken into consideration (estimated at 159,146 hectares).

<sup>10</sup> The Lake Wey ecosystem is used as proxy for the Moundou charcoal basin. This ecosystem corresponds to roughly 8 'cantons' of the total 19 'cantons' of the Lake Wey department (see 'Schéma d'aménagement et de gestion des écosystèmes du site du Lac Wey'). All of the 8 cantons have been reached as part of the sensitization and information campaigns organized under C-B EMP. Assuming that about 8 villages per cantons have been reached, the number of villages that have improved their management of wood resources is about 64 (of which 10 have received tree planting subprojects).

Result indicators for each component	Target	Achievement (Outputs)	Achievement % of the end target
<b>Component 1: Financial support for community-based ecosystem management subproject</b>  Anticipated results: <ul style="list-style-type: none"> <li>Financing mechanisms for demand-driven community-based natural management subprojects that can achieve a positive global environmental impact when aggregated, are piloted and mainstreamed</li> <li>Existence of a ready pipeline of community conceived and vetted subproject, eligible for funding under future oil revenue-sharing plans</li> </ul>	<ul style="list-style-type: none"> <li>By Mid-term Review (MTR), 45% of approved subprojects (constituting at least 20 subprojects) have been completed</li> </ul>	10 subprojects completed (8% of 123 approved) (exceeded at Project end; see below)	18% of “approved subprojects target” 50% of “number of subprojects” target
	<ul style="list-style-type: none"> <li>By the end of the Project, 70% of approved subprojects (constituting at least 50 subprojects) have been completed</li> </ul>	116 subprojects completed (94% of 123 approved for funding)	134% of “approved subprojects” target 232% of “number of subprojects” target <sup>11</sup>
<b>Component 2: Capacity building for integrated ecosystem management</b>  Anticipated results: <ul style="list-style-type: none"> <li>Capacity built within local communities and civil society in IEM principles and planning tools in order to address global environmental threats in the context of local development and NRM challenges</li> <li>Priority training needs of contractors and beneficiaries have been identified and met</li> <li>Community associations, producers' organizations, and marginalized groups are enabled to actively engage in</li> </ul>	<ul style="list-style-type: none"> <li>By MTR, 50 training sessions or sensitization campaigns to benefit community-based organizations have been implemented at the community level</li> </ul>	45 formal training sessions/ sensitization campaigns organized (75 by project end; 150% of target)	90%
	<ul style="list-style-type: none"> <li>IEM best practice guidelines have been finalized and are disseminated to all targeted communities</li> </ul>	IEM best practice guide prepared in June 2006, (1,000 published, 600 distributed to targeted communities)	100%
	<ul style="list-style-type: none"> <li>By the end of the Project, at least 25% of Local Development Plans (LDPs) in targeted zones specifically address integrated ecosystem management issues in the manner set forth in the Project Implementation Manual</li> </ul>	IEM reflected in at least 10 LDPs (against target of 5 initially set)	200%

<sup>11</sup> Target 1: 70% of approved projects (123) would be 86. 116 projects completed; 134% of target of 86.  
Target 2: At least 50 subprojects should be approved; 123 represent 232% of target of 50.

Ecosystem Management Schemes (EMSs)	<ul style="list-style-type: none"> <li>By the end of the Project, at least three EMSs have been conceived</li> </ul>	Six EMSs prepared and validated	200%
<b>Component 3: Support for an enabling environment for community-based ecosystem management</b>  Anticipated results: <ul style="list-style-type: none"> <li>Conducive enabling environment for decentralized natural resource management and environmental governance</li> <li>Decentralization laws reflect shared vision of community-driven natural resource management</li> <li>Skills and enforcement capacity of decentralized line agents, particularly the Ministry of Environment and Fisheries (MERH), strengthened</li> <li>New partnerships and financing mechanisms piloted for community ecosystem management</li> </ul>	<ul style="list-style-type: none"> <li>By MTR, the draft decree on National Fund for Environment related to Law 14/PR dated August 17, 1998, has been prepared, and by the end of the Project it has been enacted</li> </ul>	Decree No. 168 creating the Special Fund for the Environment signed Jan. 12, 2012	100%
	<ul style="list-style-type: none"> <li>By MTR, the draft Law concerning management of forests and fauna has been prepared, and by the end of the Project, it has been enacted</li> </ul>	Law No. 14/PR/2008 on management of forests, fauna, and fisheries signed June 10, 2008	100%
	<ul style="list-style-type: none"> <li>By the end of the Project, the implementation ratio of number of training sessions, as planned by the Project Management Unit (PMU) to benefit the MERH reaches 60%</li> </ul>	All training sessions, planned as part of the Annual Work Plan and Budgets (PTBAs) implemented, except for CY2011, i.e., 84% implemented	140%
<b>Component 4: Management and Monitoring &amp; Evaluation</b> <ul style="list-style-type: none"> <li>The program is managed effectively and efficiently in conformity with predefined procedures</li> <li>Necessary information is available, reliable, and regularly disseminated to the various stakeholders on time</li> <li>GIS databases and other management information systems to monitor targeted ecosystems are developed.</li> <li>A shared tool and</li> </ul>	<ul style="list-style-type: none"> <li>By the end of the Project, 80% of the reports to be prepared by PMU under the Project M&amp;E Manual have been issued in a timely manner</li> </ul>	6 annual and 20 quarterly reports prepared and issued on a timely basis, except for CY2011	109%
	<ul style="list-style-type: none"> <li>80% of contracts signed by the PMU have been executed on time</li> </ul>	72% of contracts for consultants' studies and other services commissioned by CB EMP were executed on time	90%
	<ul style="list-style-type: none"> <li>By the end of the Project, a feasibility study of the National Observatory for Natural Resources Monitoring (ONAREN) has been performed and approved</li> </ul>	Feasibility study finalized and approved in December 2011	100%

participatory methodologies to monitor community ecosystem management and rural natural resource management are available at the national level	<ul style="list-style-type: none"> <li>Well defined indicators relating to land degradation and biodiversity conservation are integrated into rural development monitoring system under the Rural Development Support Program (PIDR)</li> </ul>	Indicators being defined by ONAREN as part of its priority work program	100%
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## 2.2: Summary of training organized under PROADEL

The main capacity-building efforts financed under Component 2 were directed at strengthening the technical and organizational capacity of community members, service providers, other actors, and MERH personnel with respect to general topics (such as participatory approaches, needs assessments, and environmental management) and more technical and managerial topics (such as tree planting, accounting, financial management, and procurement).

According to the records of the M&E unit, capacity-building activities included:

### (a) Launch and Sensitization

- Five launch workshops organized in N'Djamena, Moundou, Léré, Bahr el Ghazal, and Abéché (2006)
- Five sensitization workshops in Moundou (December 2007, about 300 participants), Lake Léré (2008, about 250 participants), Mandélia (2008, about 300 participants), Bahr el Ghazal and Batha (2008, about 600 participants)

### (b) Community training

- Procurement, accounting and financial management, and M&E (about 600 participants)
- Tree planting (about 300 participants)
- Environmental protection (specific themes) (about 1,400 participants)

### (c) Service providers and other actors

- 70 service providers trained in project design
- Study tour organized to Senegal for community representatives (4) and MERH staff (2)

### (d) MERH staff

- Fisheries: 2 training sessions (22 participants)
- Forestry: 10 training sessions (150 participants)
- Desertification: 10 training sessions (172 participants)

In total about 2,100 community members (34 training sessions), 70 service providers (8 training sessions) and about 500 MERH staff have been trained (22 trainings sessions), or 2,670 persons (64 training sessions, plus 10 launch and sensitization workshops). About 70 percent of these training sessions and workshops (a total of 45) were undertaken prior to the Mid-term Review.

## Annex 3: Subproject Types and Costs

### 3.1 Subprojects (costs in CFAF)

Tableau Récapitulatif des Micro-Projets												
N°	Identification Micro-Projets	Type	Localité/ nb S/P	Total coût M/P	Sub. GCE	Part Com.	%	Date 1er deb.	TOTAL sub	% disbursed	% total nb. S/P	% total coût
1	Plantation arbre Al Mahana II Kamadalwa-Am-Dam	Plantation arbres	Abdi	15,599,100	12,479,280	3,119,820	20	14/02/09	12,479,280	100		
2	Plantation arbre Sahel Vert 2 Magrame Am-Dam A	Plantation arbres	Abdi	19,528,850	15,623,080	3,905,770	20	14/02/09	15,924,780	102		
3	Plantation arbre ADOG Am-Dam Abdi	Plantation arbres	Abdi	15,167,130	12,133,705	3,033,425	20	14/02/09	12,134,705	100		
4	Drs Union Mabrouk Marakala Abdi	Defenses/Retau Sol	Abdi	16,785,450	13,428,360	3,357,090	20	29/06/09	13,428,380	100		
5	Drs Assalama Korio Abdi	Defenses/Retau Sol	Abdi	19,337,450	15,469,960	3,867,490	20	24/12/07	15,469,960	100		
6	Drs Union Al Tatwir Tilehayé Abdi	Defenses/Retau Sol	Abdi	17,848,050	14,278,440	3,569,610	20	24/12/07	14,278,432	100		
7	Gestion de pâturage/culture Al Chadja Abker Abdi	Gest Paturage	Abdi	13,790,500	11,246,500	2,544,000	18	24/12/07	8,036,262	71		
8	Gestion pâturage/culture Madawi Abouli Abdi	Gest Paturage	Abdi	11,038,500	8,608,500	2,430,000	22	24/12/07	8,192,150	95		
9	Gestion pâturage/culture Al Takhadom Abdi	Gest Paturage	Abdi	19,398,520	15,518,816	3,879,704	20	24/12/07	12,646,845	81		
10	Gestion pâturage/culture Chamboli Abdi	Gest Paturage	Abdi	22,306,700	17,845,360	4,461,340	20	24/12/07	17,845,360	100		
11	Gestion pâturage/culture Attaawoun Zabalat Abdi	Gest Paturage	Abdi	8,530,000	6,736,000	1,794,000	21	24/12/07	6,797,600	101		
12	Protection berge sud Batha Le Jardin Am-Dam Abd	Protection des berge	Abdi	15,298,800	12,239,040	3,059,760	20	29/06/09	10,661,824	87		
13	Protec Rive Gauche Oudi Alakori Al MariYoud hab	Protection des berge	Abdi	13,649,210	10,919,368	2,729,842	20	14/02/09	10,919,368	100		
14	Protec Oudi Machégou Sahel Vert 1 Bitné Am-Dam	Protection des berge	Abdi	15,167,130	12,133,704	3,033,426	20	14/02/09	13,530,154	112		
15	Protec Rive droite Ouadi Alakori Assamar Goss Dj	Protection des berge	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
16	Protec Ouadi Tingo Sabah Al Kher Karota Am-Dar	Protection des berge	Abdi	15,167,130	12,133,705	3,033,425	20	14/02/09	12,133,705	100		
17	Protec Ouadi Tingo Nour Al ene Idal assat Am-Dar	Protection des berge	Abdi	15,167,129	12,133,704	3,033,425	20	14/02/09	11,769,404	97		
18	Protec Berge Sud Batha Al Intadj Am-Dam	Protection des berge	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
19	Village vert Rassalfil Abdi	Village vert	Abdi	15,473,000	12,698,400	2,774,600	18	24/12/07	12,698,400	100		
20	Village vert Union Assartini Abdi	Village vert	Abdi	10,089,200	8,071,360	2,017,840	20	24/12/07	11,310,288	140		
21	Village vert Margachangane Abdi	Village vert	Abdi	13,051,500	10,441,200	2,610,300	20	24/12/07	10,441,200	100		
22	Sensibilisation FA Nassarna Abdi	Vulgarisation FA	Abdi	7,879,500	6,303,600	1,575,900	20	24/12/07	6,303,600	100		
23	Vulgarisat° ASS VIL PR DEV Djourouf Al ahmar A	Vulgarisation FA	Abdi	20,468,250	16,374,600	4,093,650	20	14/02/09	18,728,820	114		
24	Sensibilisation FA Al Mahana Abdi	Vulgarisation FA	Abdi	13,394,700	10,715,760	2,678,940	20	24/12/07	10,715,760	100		
25	AF manga Rogogo Abdi	Aménagement Forêt	Abdi	14,285,700	11,428,560	2,857,140	20	24/12/07	11,428,560	100		
26	AF Andila Djamaalarifine Abdi	Aménagement Forêt	Abdi	14,258,200	11,406,560	2,851,640	20	24/12/07	11,405,660	100		
27	Af Fédération Almahana Abdi	Aménagement Forêt	Abdi	20,274,904	16,395,200	3,879,704	19	24/12/07	16,395,200	100		
28	Af Chibine Altakhadom Abdi	Aménagement Forêt	Abdi	15,826,250	12,661,000	3,165,250	20	24/12/07	12,661,000	100		
29	Af Kouchekouchne Abdi	Aménagement Forêt	Abdi	15,606,250	12,485,000	3,121,250	20	24/12/07	12,485,010	100		
30	Af Bord Sud Batha Le Reboisement Am-Dam	Aménagement Forêt	Abdi	16,645,750	13,316,600	3,329,150	20	14/02/09	13,316,600	100		
31	Af Djarabou Rive Nord Batha la Forêt Am-Dam Ab	Aménagement Forêt	Abdi	15,078,000	12,062,400	3,015,600	20	14/02/09	12,063,400	100		
32	Af Sud Am-Dam P4 Al Gamra Am-Dam Abdi	Aménagement Forêt	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
33	Af Amchara Al Kheira Am-Dam Abdi	Aménagement Forêt	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
34	Af Al Djazira et Parc Zoo Assiha Dancouch Am-D	Aménagement Forêt	Abdi	19,641,875	15,713,500	3,928,375	20	14/02/09	9,578,880	61		
35	Af Fagus Ferrick Al Haya Am-Dam Abdi	Aménagement Forêt	Abdi	15,167,129	12,133,704	3,033,425	20	14/02/09	12,134,404	100		
36	Af Ouadi Hadj-Lidjé AREDA Am-Dam Abdi	Aménagement Forêt	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
37	Af Galerie Ouadi Habanié Istirack ALWATAN Am	Aménagement Forêt	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
38	Af Ambiteck Etoile d'Or Am-Dam Abdi	Aménagement Forêt	Abdi	13,649,210	10,919,370	2,729,840	20	14/02/09	10,919,370	100		
39	AF Ambassatna Zaribé Am Dam Abdi	Aménagement Forêt	Abdi	19,572,500	15,658,000	3,914,500	20	14/02/09	15,648,000	100		
40	Af Assada Manchagala Am Dam	Aménagement Forêt	Abdi	19,810,500	15,848,400	3,962,100	20	14/02/09	15,848,400	100		
41	Af Hayal Balat tchaima Am Dam	Aménagement Forêt	Abdi	20,299,000	16,239,200	4,059,800	20	14/02/09	16,239,200	100		
42	Elev Pintade Alhila Komoske Abdi	Elevage	Abdi	10,703,000	8,553,000	2,150,000	20	24/12/07	11,126,480	130		
43	Elev Pintades Al tadamoun Tandjak Abdi	Elevage	Abdi	10,703,000	8,553,000	2,150,000	20	24/12/07	8,559,580	100		
44	Elev d'autruche Al niya Dabangant Abdi	Elevage	Abdi	13,648,600	10,918,880	2,729,720	20	24/12/07	10,918,880	100		
45	Rizipisciculture Rahadama Tandjak Abdi	Programme intégré	Abdi	18,532,000	14,813,920	3,718,080	20	24/12/07	5,881,920	40		
46	Programme intégré Al Mahana Vul foyer Am-Dam	Prog intégré foyerAm	Abdi	9,809,250	7,847,400	1,961,850	20	14/02/09	7,847,400	100		
47	Programme intégré Union Moustakbal Hilet H Ab	Programme intégré	Abdi	11,921,800	9,537,700	2,384,100	20	24/12/07	9,190,318	96		
48	Pisciculture Salsabil AbKer Abdi	Pisciculture	Abdi	14,032,450	10,971,820	3,060,630	22	24/12/07	4,490,182	41		
49	Pisciculture Almahana Abdi	Pisciculture	Abdi	22,260,200	17,381,300	4,878,900	22	24/12/07	7,123,664	41		
50	Pisciculture Abkerdjombo Abdi	Pisciculture	Abdi	13,897,840	10,996,920	2,900,920	21	24/12/07	3,790,272	34		
51	Pisciculture Birkebaride Abdi	Pisciculture	Abdi	11,328,350	8,808,280	2,520,070	22	24/12/07	3,625,072	41		
52	Pisciculture Tamia douli Ourga Abdi	Pisciculture	Abdi	18,015,600	14,412,480	3,603,120	20	24/12/07	5,764,992	40		
53	Pisciculture AlIkhlis Tourane Am dam Abdi	Pisciculture	Abdi	23,664,500	18,931,600	4,732,900	20	14/02/09	7,572,640	40		
	Total Abdi Am-Dam		53	814,662,917	651,042,456				587,977,581		43.1	50.2

54	Plantation arbre Yanli Lere	Plantation arbres	Lere	8,846,245	7,158,745	1,687,500	19	29/06/07	7,158,322	100		
55	Plantation arbre LAIKI Berliang Lere	Plantation arbres	Lere	3,155,730	2,524,584	631,146	20	29/06/07	2,524,584	100		
56	Plantation arbre Guegou Lere	Plantation arbres	Lere	2,015,360	1,612,288	403,072	20	29/06/07	1,612,288	100		
57	Plantation arbre gpt Gapelle de Bariki Lere	Plantation arbres	Lere	5,425,360	4,440,360	985,000	18	03/07/08	4,440,360	100		
58	Plantat d'arbre OP MIXTE Lagabla de Bika Lere	Plantation arbres	Lere	4,512,150	3,630,850	881,300	20	03/07/08	3,630,850	100		
59	Plantation arbre OP Zabani Goudoukou II Lere	Plantation arbres	Lere	6,767,670	5,414,136	1,353,534	20	03/07/08	5,414,235	100		
60	Plantation arbreOP OVED Guetale Lere	Plantation arbres	Lere	11,184,040	9,152,790	2,031,250	18	03/07/08	9,153,790	100		
61	Plantat arbre GPT Balgogne Guetale Guegou Lere	Plantation arbres	Lere	5,659,890	4,527,912	1,131,978	20	03/07/08	4,527,913	100		
62	Plantation arbre GPT IABDEU de Tikere Lere	Plantation arbres	Lere	3,853,900	3,079,120	774,780	20	03/07/08	3,079,120	100		
63	Plantation arbre Flotte d'Espoir Lere	Plantation arbres	Lere	16,808,710	13,386,960	3,421,750	20	03/07/08	13,386,960	100		
64	Plantation arbre ADESOR Lambouri Lere	Plantation arbres	Lere	5,062,688	3,979,260	1,083,428	21	03/07/08	3,979,783	100		
65	Plantation arbre GOPASYP de Zagere Lere	Plantation arbres	Lere	8,795,000	7,037,000	1,758,000	20	03/07/08	7,037,000	100		
66	Plantation arbre OP Product Pouame Lere	Plantation arbres	Lere	3,277,830	2,632,264	645,566	20	03/07/08	3,421,943	130		
67	Plantation arbre OP Taiki De Bouloro Lere	Plantation arbres	Lere	4,034,155	3,227,155	807,000	20	03/07/08	3,227,155	100		
68	Plantation arbre GPT FIZARA de Bidang Lere	Plantation arbres	Lere	3,560,325	2,848,260	712,065	20	03/07/08	2,848,260	100		
69	Plantation arbre GPT Gbadjoba Tefoultrere Lere	Plantation arbres	Lere	4,467,750	3,574,200	893,550	20	03/07/08	3,574,200	100		
70	Plantation arbre GPT jeune prod Teriang Lere	Plantation arbres	Lere	4,234,650	3,387,720	846,930	20	03/07/08	3,387,720	100		
71	Plantation arbreAss AFDR Ribao Lere	Plantation arbres	Lere	3,464,360	2,781,488	682,872	20	03/07/08	1,991,809	72		
72	Plantation arbre Kabhi Boubalet Lere	Plantation arbres	Lere	5,039,400	4,031,520	1,007,880	20	03/07/08	4,031,500	100		
73	Plantation arbre OP Manziki Bare FOULI Lere	Plantation arbres	Lere	3,755,130	3,004,104	751,026	20	03/07/08	3,004,104	100		
74	Plantation arbre OP YAHGAPELLE Labzaha Lere	Plantation arbres	Lere	3,971,800	3,179,260	792,540	20	03/07/08	3,179,260	100		
75	Plantat arbre OP Mixte Dainone Gsemoh Lere	Plantation arbres	Lere	5,557,105	4,445,684	1,111,421	20	03/07/08	4,445,684	100		
76	Plantation arbre Mourame Lere	Plantation arbres	Lere	5,220,330	4,171,264	1,049,066	20	03/07/08	4,171,264	100		
77	Plantation arbre Tetekouri Lere	Plantation arbres	Lere	6,059,490	4,847,600	1,211,890	20	03/07/08	4,013,154	83		
78	Plantation arbre Lampito Lere	Plantation arbres	Lere	2,658,500	2,378,200	280,300	11	30/06/08	2,378,200	100		
79	Plantation arbre Teyanbaida Lere	Plantation arbres	Lere	1,182,000	1,062,000	120,000	10	30/06/08	1,062,000	100		
80	Plantation arbres Zamaduhou Léré	Plantation arbres	Lere	3,653,950	2,925,950	728,000	20	29/06/07	2,925,950	100		
81	Micro barrages et mares à Baibi Lere	Micro barrages/Mares	Lere	30,185,000	24,243,000	5,942,000	20	29/06/07	26,962,325	111		
82	Micro barrage Keuzi Lere	Micro barrages/Mares	Lere	14,210,200	11,368,000	2,842,200	20	29/06/07	10,769,435	95		
83	Micro barrage Boursou Lere	Micro barrages/Mares	Lere	14,210,000	11,368,000	2,842,000	20	29/06/07	14,257,832	125		
84	Micro barrage Boursou Binder Lere	Micro barrages/Mares	Lere	14,210,000	11,368,000	2,842,000	20	29/06/07	21,257,681	187		
85	Mares Makeure Lere	Micro barrages/Mares	Lere	15,975,000	12,875,000	3,100,000	19	29/06/07	12,880,500	100		
86	Micro barrage Goudoukou Lere	Micro barrages/Mares	Lere	14,210,000	11,368,000	2,842,000	20	29/06/07	16,679,200	147		
87	Installation cordon pierreux Samaritain Berliang Lere	Defenses/Retas Sol	Lere	5,613,825	4,623,825	990,000	18	29/06/07	4,623,825	100		
88	Lutte contre l'ensablement Dissing Lere	Lutte contre ensable	Lere	10,052,500	8,042,000	2,010,500	20	24/12/07	10,454,600	130		
89	Lutte contre l'ensablement ASSO VIL Fouli (ADIF	Lutte contre ensable	Lere	10,370,000	8,296,000	2,074,000	20	29/06/07	8,296,000	100		
90	Vulgarisation de foyer amélioré Lere	Vulgarisation FA	Lere	5,912,922	4,759,422	1,153,500	20	24/12/07	4,610,320	97		
91	Rétablissement zone de protection intégrale Fouli Léré	Rétablissement Zone	Lere	1,690,000	1,690,000	0	0	30/06/08	1,690,000	100		
92	Rétablissement zone mise défens halieutique Mouramé	Rétablissement Zone	Lere	1,342,000	1,342,000	0	0	30/06/08	1,342,000	100		
93	Rétablissement zone mise en défens halieutique Doué Lér	Rétablissement Zone	Lere	1,342,000	1,342,000	0	0	30/06/08	1,342,000	100		
94	Rétablissement zone mise en défens halieut labzayé Léré	Rétablissement Zone	Lere	1,342,000	1,342,000	0	0	30/06/08	1,342,000	100		
95	Rétablissement zone mise défens halieutique Dissing Lér	Rétablissement Zone	Lere	1,342,000	1,342,000	0	0	30/06/08	1,342,000	100		
96	Rétablissement zone mise en défens halieutique Tikéré L	Rétablissement Zone	Lere	1,342,000	1,342,000	0	0	30/06/08	1,342,000	100		
97	Mur visualisation de la RFBL Lere	Mur Visualisation	Lere	24,016,900	19,239,500	4,777,400	20	29/06/07	19,202,909	100		
98	Amenagement plage de Dissing Léré	Amenagement Plage	Lere	22,333,600	14,255,600	8,078,000	36	30/06/08	14,255,600	100		
Sub-Total Léré				45	331,923,465	264,647,021			286,257,635		36.6	20.4
99	Plantation arbre Bitanda Log Occ	Plantation arbres	Log Occ	18,099,420	15,859,420	2,240,000	12	04/05/09	13,419,960	85		
100	Plantation arbre Dodinda Log Occ	Plantation arbres	Log Occ	16,041,380	13,741,380	2,300,000	14	04/05/09	17,340,202	126		
101	Plantation arbres Gouri Log Occ	Plantation arbres	Log Occ	18,284,220	16,004,220	2,280,000	12	04/05/09	12,644,677	79		
102	Plantation arbres Kaga II Log Occ	Plantation arbres	Log Occ	11,304,200	9,884,200	1,420,000	13	04/05/09	8,639,823	87		
103	Plantation arbres Koutou Debo I Log Occ	Plantation arbres	Log Occ	11,354,200	9,934,200	1,420,000	13	04/05/09	8,127,283	82		
104	DRS Koloum Log Occ	Defenses/Retas Sol	Log Occ	8,115,710	6,445,710	1,670,000	21	04/05/09	6,566,497	102		
105	Drs Mare I Log Occ	Defenses/Retas Sol	Log Occ	9,036,850	7,436,850	1,600,000	18	04/05/09	7,199,270	97		
106	Drs Mare II Log Occ	Defenses/Retas Sol	Log Occ	9,098,560	7,238,560	1,860,000	20	04/05/09	5,978,892	83		
107	Drs Souga Log Occ	Defenses/Retas Sol	Log Occ	22,336,895	19,416,895	2,920,000	13	04/05/09	14,059,870	72		
108	Drs Kori I Log Occ	Defenses/Retas Sol	Log Occ	11,997,700	10,577,700	1,420,000	12	04/05/09	9,471,205	90		
109	Drs Maikane Log Occ	Defenses/Retas Sol	Log Occ	19,613,110	17,573,110	2,040,000	10	04/05/09	11,342,594	65		
110	Af Lolo Log Occ	Amenagement Forêt	Log Occ	28,614,160	25,514,160	3,100,000	11	04/05/09	12,110,664	47		
111	Education Environnementale Bah Log Occ	Education env	Log Occ	17,304,500	16,392,000	912,500	5	18/07/08	14,968,500	91		
112	Programme intégré Dokou Log occ	Programme intégré	Log Occ	20,358,000	19,113,000	1,245,000	6	18/07/08	16,095,540	84		
113	Programme intégré Betogo Log occ	Programme intégré	Log Occ	21,388,000	20,233,000	1,155,000	5	18/07/08	17,106,000	85		
114	Programme intégré Dig Dig Log Occ	Programme intégré	Log Occ	17,275,300	16,420,300	855,000	5	18/07/08	14,890,600	91		
Sub-Total Lac Wey				16	260,222,205	231,784,705			189,961,577		13.0	17.9
115	Plantation d'arbres Al Nadja Mandelia	Plantation arbres	Mandelia	12,705,400	10,164,320	2,541,080	20	04/05/09	10,164,317	100		
116	Groupeement Niandel Djongotoli Mandelia	verge communautaire	Mandelia	12,705,400	10,855,400	1,850,000	15	06/08/09	10,855,400	100		
117	Plantation arbre PODA Mandelia	Plantation arbres	Mandelia	12,749,400	10,199,520	2,549,880	20	04/05/09	10,199,520	100		
118	Micro barrages et mares Am tabane Mandelia	Micro barrages/Mares	Mandelia	29,237,007	23,387,007	5,850,000	20	04/05/09	23,387,008	100		
119	Micro Barrage et mares Koumoussouri Mandelia	Micro barrages/Mares	Mandelia	24,980,087	19,980,087	5,000,000	20	04/05/09	19,984,070	100		
120	Micro barrage et mares Saboudi Mandelia	Micro barrages/Mares	Mandelia	31,088,867	24,863,867	6,225,000	20	04/05/09	24,865,758	100		
121	Micro barrage et mares Tchendjou Mandelia	Micro barrages/Mares	Mandelia	28,767,787	23,012,787	5,755,000	20	04/05/09	23,012,787	100		
122	Sensibilisation et FA Al Moustakbal Mandelia	Vulgarisation FA	Mandelia	15,720,000	12,576,000	3,144,000	20	04/05/09	13,626,500	108		
123	Education Envit Jardin botanlq Al Saha KOUL Ma	Education env	Mandelia	16,023,200	13,793,200	2,230,000	14	04/05/09	13,378,560	97		
Sub-total Mandelia				9	183,977,148	148,832,188			149,473,920		7.3	11.5
124	Redressement Micro- Projet ABDI				12,800,000							
125	Redressement Micro- Projet AM-DAM				15,600,000							
126	Redressement Micro- Projet Mandalia				4,900,000							
127	Redressement Micro- Projet				23,700,000							
128	Redressement Micro- Projet				8,500,000							
129	Confection Panneaux micro-projet				7,680,000							
130	Confection Panneaux micro-projet				4,210,000							
131	Confection Panneaux micro-projet				5,786,000							
Sub-total redressement					83,176,000				83,176,000			
Total (sans redressement)				123	1,590,785,735	1,296,306,370	19		1,213,670,713	93.6	100	100
Grand Total (inclus redressement)				123	1,673,961,735	1,379,482,370	18		1,296,846,713	94.0		



<b>3.2 Subprojects by types</b>			
<b>Description</b>	<b>Nb. of subprojects</b>	<b>Sites</b>	<b>Average cost (CFAF million)</b>
Tree plantations	38	Léré	6.5
Forest upgrade	18	Abdi	13,6
Micro-dams	10	Léré & Mandélia	17,4
Anti-erosive lines	10	Abdi & Moundou	11,6
Pasture management	5	Abdi	12,0
River bank protection	7	Amdam	11,6
Fisheries protection	6	Léré	1,4
Fish farming	7	Abdi	13,6
Improved stoves	5	Various sites	10,1
<b>Sub-total</b>	<b>106</b>		
Others ((sand erosion control, green villages, environmental education, livestock (ostrich, guinea fowls), animal park, beach/ tourism development, etc.)	17	Various sites	14.9
<b>TOTAL</b>	<b>123</b>		<b>10.5</b>

Note: None of the fish farming subproject were completed. As mentioned in the project beneficiary survey, early in the implementation of these subprojects it became clear that their costs had been underestimated and that they were not feasible with the funding earmarked. It was decided to make no further expenditures after the initial payments.

<b>3.3 Subprojects per site</b>			
<b>Site name</b>	<b>Nb. of Subprojects</b>	<b>Baseline project(s)</b>	<b>Remarks (PDL preparation)</b>
Lake Léré	45	PSAOP/ PRODALK	PRODALK prepared PDLs
Lake Wuey (Moundou)	16	PROADEL	PROADEL prepared PDLs (2009)
Mandelia Fauna Reserve	9	PROADEL	PROADEL prepared PDLs in 2009/2010
Adbi (Ouadai)	28	PSAOP/ PROBABO	PRODABO prepared PDLs
Amdam (Sila)	25	PSAOP	No PDLs
<b>SUB-TOTAL (subprojects executed)</b>	<b>123</b>		
Bahr El Ghazal	69	PSAOP	Sub-projects were approved for a total of CFAF 64 million, but they were neither financed, nor implemented
<b>GRAND TOTAL (subprojects executed and approved)</b>	<b>192</b>		

Note: No subprojects were implemented for Bahr El Ghazal during the entire project period because (i) the region was the last to approve its subproject portfolio and (ii) by Mid-term Review (June 2009), funds for subproject implementation were nearly all committed, and it was decided not to commit any more funding to the subproject component.

## **Annex 4: Beneficiary Survey Results**

### ***A. Description of beneficiary survey***

1. A survey was administered in December 2011 at all five project sites to different categories of Project beneficiaries. Two types of questions were used. Open-ended questions allowed respondents to express their opinions freely and in a qualitative way about the project approach versus the immediate needs of the community, the financial and technical support given, the problems encountered, and social issues such as gender. Specific questions were designed to elicit precise information about the relevance, efficiency, impact, and sustainability of subproject implementation on the following scale: weak, average, and good.
2. The first set of specific survey questions was administered to a sample of beneficiaries of 76 subprojects financed by the Project. They were meant to gauge the beneficiaries' opinions of subprojects results. The sample projects included tree planting, soil protection, micro-dams with bottomland development, conservation of fish resources, tourism, and fish farming, offering a representative range of the 123 subprojects financed by CB EMP.
3. Another set of specific survey question was administered to different types of beneficiaries: leaders of community-based associations supported by the Project, as well as local government authorities, decentralized structures of line ministries, and service providers involved in CB EMP implementation. That part of the survey was designed to gauge respondents' opinions on the different types of capacity building supported under the Project.
4. The main results of the survey are presented in following sections.

### ***B. Beneficiary survey results from open-ended questions***

#### ***Information/sensitization campaigns***

5. In general, community members learned about the community-driven development approach or at least had heard of it under other projects at the time the CB EMP started its information/sensitization campaigns and were receptive to the visits that the Project's information agents (*animateurs*)<sup>12</sup> organized to present the CB EMP program and opportunities. The communities indicated that they had received adequate information on CB EMP through these visits, particularly as to their responsibilities for managing subprojects. They also found these visits useful to help them form development committees (ACDs) wherever these structures did not exist.

#### ***Technical training***

6. All subproject beneficiaries interviewed were satisfied with the help they had received from the trainers. They greatly appreciated the information, training, and technical assistance they had received on subproject financial management and procurement procedures. The ACDs were confident that they knew the procedures well

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<sup>12</sup> NGOs were recruited to be trainers and advisors to communities and assist them in organizing the village planning meetings, preparing Local Development Plans, and prioritizing the subprojects to be financed.

enough to be able to manage subproject implementation without outside assistance, including the recruitment of technical service providers (*cabinets d'ingénieurs conseils*), preparation of financing requests and procurement documents, and hiring contractors for subproject construction and equipment.

### ***Service provision***

7. Beneficiaries expressed a poor opinion of the quality of the services provided during subproject design and implementation. At the design stage, feasibility studies were not always conducted with the required care, causing subproject costs to be over- and underestimated and causing subprojects to fail (examples include fish-farming, poultry, and riverbank stabilization subprojects). Other causes of subproject failure included a bad location, inappropriate technology, and lack of training for beneficiaries. At the implementation stage, failure to provide sufficient follow-up had resulted in major technical difficulties.

### ***Subproject benefits***

8. Beneficiaries generally expressed very favorable opinions of most subprojects, including tree planting, micro-dams, bottomland/pond development, and fish resource control. They were aware of and satisfied with the long-term benefits of these subprojects. They expressed particular satisfaction with the short-term benefits, such as being able to grow vegetables (in the case of micro-dams or pond/ bottomland development) and gain access to water (through the establishment of wells for tree nurseries). Beneficiaries expressed negative opinions of subprojects that had been badly designed (for example, subprojects that had not included fencing for tree nurseries or had failed to plant tree seedlings at the appropriate time for them to survive). They were particularly unhappy with subprojects that never got off the ground (which occurred with the fish-farming and poultry subprojects).

### ***Beneficiary contributions and subproject completion time***

9. The ACDs did not consider the contribution level (generally 20 percent) as an obstacle in itself, to the extent that the contribution could be made in kind (land, materials, labor). There was some misunderstanding of the nature of the in-kind contributions and their valuation, however, at times because they were not mentioned in the contracts. Nor did villagers regard it as a problem if the implementation period for a subproject was extended (say from one to two years from planning to realization) if they could receive support continuously during that period.

## ***C. Beneficiary survey results from specific questions***

### ***Survey results concerning subprojects***

10. The summary results of the survey concerning subprojects are in Table A5.1.

**Table A5.1: Beneficiary subproject assessment**

Evaluation criteria	Weak		Average		Good	
	Nb.	%	Nb.	%	Ne b.	%
Relevance	5	7	21	28	50	65
Efficiency	17	22	42	54	18	24
Impact (soil degradation and biodiversity)	12	16	34	45	30	39
Viability and sustainability	52	68	18	24	6	8

Note: Sample = 76 respondents.

11. The survey results can be summarized as follows:

- **Relevance.** Most respondents (65 percent) judged subprojects to be highly relevant, because they responded to beneficiaries' real needs to reverse degradation of the local environment. This group of respondents included beneficiaries of subprojects for tree planting, micro-dams, bottomland/pond development, and contour lines for soil degradation. Seven percent of subproject beneficiaries, however, thought that subprojects were not adapted to their needs, especially those who had pursued the fish-farming subprojects that were never implemented.
- **Efficiency.** Most respondents (54 percent) believed that subprojects were properly sized and that funding was adequate to complete implementation. A significant fraction (22 percent) indicated that certain expenditures were too costly (for example, planting materials and overall costs for tree planting).
- **Impact.** The greatest share of respondents (44 percent) indicated subprojects generally had a visible impact on their immediate environment in terms of improving soil degradation and conserving biodiversity. They emphasized that an added benefit of subprojects was the impact on food security (for example, the subproject to conserve fish resources in Lake Léré or micro-dams and the accompanying development of bottomlands).
- **Viability and sustainability.** The majority of respondents (68%) expressed doubts about the sustainability of subproject operations, mainly because of weak follow-up on capacity building by service providers and decentralized structures of line ministries (see the next section). Land tenure issues were also mentioned on several occasions (these issues have been resolved by issuing titles to the land used by communities for subprojects).

#### ***Survey results concerning capacity building***

12. The beneficiary survey results concerning capacity building are described in Table A5.2.

**Table A5.2: Beneficiary assessment of capacity-building activities (%)**

<b>Types of training/capacity-building activities</b>	<b>Low</b>	<b>Average</b>	<b>High</b>	
Information/sensitization	17	29	53	100%
Technical training sessions	25	24	51	100%
Institution building	19	28	53	100%
Procurement	19	33	48	100%
Financial management	9	26	64	100%
Technical support by service providers and technical services for subproject preparation	40	32	28	100%
Average	21	29	50	100%

*Note:* Based on 76–84 valid responses, depending on the topic.

13. Training supported by the Project was generally appreciated by beneficiaries. Half of the respondents on average believed that training activities were very beneficial, compared to only 21 percent who believed their benefits were low. This opinion is sustained across activities, with the notable exception of the support provided by service providers and decentralized technical structures of line ministries. Their support was rated low by 40 percent of respondents. As noted, discussions with respondents indicated that poor capacity building services would limit the sustainability of subprojects.

14. The high marks given to financial management training by 64 percent of the respondents should be noted. In particular, community-based associations with a dearth of expertise in financial management particularly appreciated the training. Procurement training was well appreciated (48 percent rated it high and 33 percent rated it average) for the same reason. Some 51 percent of respondents thought that technical training sessions were good, whereas 25 percent thought them poor. Clearly it would be valuable to improve this training, which was done in association with decentralized services of MERH.

## Annex 5: Bank Lending and Implementation Support/Supervision Processes

### (a) Task team members

Names	Title	Unit	Responsibility/ Specialty
<b>Lending</b>			
Valérie Layrol	Rural Development Officer	SFRSI	TTL
François Rantrua	Senior Corporate Strategy Officer	SFRSI	
Noel Chabeuf	Livestock and Pastoralism	AFTS3	
Soulemame Fofana	Operations Analyst	AFTS3	
Ousmane Seck	Senior Agricultural Specialist	AFTS3	
Glenn Hodes	Environmental Specialist	AFTS4	
Nathalie Munzberg	Counsel	LEGAF	
Emile Finateu	Sr. Financial Management Specialist	AFTFM	
Hugues Agossou	Sr. Financial Management Specialist	AFTFM	
Wolfgang Chadab	Finance Officer	LOAG2	
Chloe Milner	Rural Development Specialist	AFMTD	
Korotimi Sylvie Traore	Language Program Assistant	AFTS3	
Pierre Morin	Sr. Procurement Specialist	AFTPC	
Henri Aka	Procurement Specialist	AFTPC	
Charles Donang	Procurement Specialist	AFTPC	
Enos Esikuri	Technical Specialist	ENV	
Thomas Walton	Lead regional Coordinator	AFTSD	
<b>Supervision / ICR</b>			
Fatime Mahamat Adoum	Executive Assistant	AFMTD	
Hugues Agossou	Sr. Auditor	IADVP	
Nicolas Ahouissoussi	Senior Agriculture Economist	AFTAR	
Amadou Alassane	Sr. Agricultural Specialist	AFTAR	
Andrew Osei Asibey	Sr. Monitoring & Evaluation Specialist	AFTRL	
Mohammed A. Bekhechi	Lead Counsel	LEGEN	
Ningayo Charles Donang	Senior Procurement Specialist	AFTPC	
Lancine Dosso	Financial Management Specialist	AFTFM	
Emile Louis Rene Finateu	Consultant	AFTFM	
Soulemame Fofana	Sr. Operations Officer	AFTAR	TTL
Anna Victoria Gyllerup	Senior Operations Officer	AFTRL	
Sekou Keita	E T Consultant	AFTFM	
Remi Kini	Sr. Environmental Economist	ENV	
Valérie Layrol	Sr. Environmentalist	ENV	TTL
Lucienne M. M'Baipor	Social Development Specialist	AFTCS	

Pierre Morin	Senior Procurement Specialist	AFTPC	
Etienne Nkoa	Sr. Financial Management Specialist	AFTFM	
Africa Eshogba Olojoba	Sr. Environmental Specialist	AFTEN	
Korotimi Sylvie Traore	Program Assistant	MNACS	
Paulette C.E. Aida Thioun Zoua	Program Assistant	AFMTD	
<b>Supervision / ICR</b>			
Fatime Mahamat Adoum	Executive Assistant	AFMTD	
Hugues Agossou	Sr. Auditor	IADVP	
Nicolas Ahouissoussi	Senior Agriculture Economist	AFTAR	
Amadou Alassane	Sr. Agricultural Specialist	AFTAR	
Andrew Osei Asibey	Sr. Monitoring & Evaluation Specialist	AFTRL	
Mohammed A. Bekhechi	Lead Counsel	LEGEN	
Ningayo Charles Donang	Senior Procurement Specialist	AFTPC	
Lancine Dosso	Financial Management Specialist	AFTFM	
Emile Louis Rene Finateu	Consultant	AFTFM	
Soulemame Fofana	Sr. Operations Officer	AFTAR	
Anna Victoria Gyllerup	Senior Operations Officer	AFTRL	
Sekou Keita	E T Consultant	AFTFM	
Remi Kini	Sr. Environmental Economist	ENV	
Valérie Layrol	Sr. Environmentalist	ENV	
Lucienne M. M'Baipor	Social Development Specialist	AFTCS	
Pierre Morin	Senior Procurement Specialist	AFTPC	
Etienne Nkoa	Sr. Financial Management Specialist	AFTFM	
Africa Eshogba Olojoba	Sr. Environmental Specialist	AFTEN	
Korotimi Sylvie Traore	Program Assistant	MNACS	
Paulette C.E. Aida Thioun Zoua	Program Assistant	AFMTD	

**(b) Staff time and cost**

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
<b>Lending</b>		
FY00	14	67.25
FY01	29	108.96
FY02	41	163.12
FY03	30	110.59
FY04	24	81.19
FY05	16	43.08
FY06		0.00
FY07		0.00
FY08		0.00
<b>Total:</b>	154	574.19
<b>Supervision/ICR</b>		
FY00		0.00
FY01		0.00
FY02		0.10
FY03		0.00
FY04		0.00
FY05	22	92.02
FY06	32	88.39
FY07	36	131.45
FY08	24	72.04
FY09	6	0.00
<b>Total:</b>	120	384.00



## Annex 6: List of Supporting Documents

World Bank and GEF reports:

- Project Appraisal Document, Local Development Program Support Project (PROADEL), August 19, 2004 (Report No: 24101-CH)
- Project Appraisal Document, Community-Based Ecosystem Management Project, May 31, 2005 (Report No. 32512)
- Global Environment Facility, Trust Fund Grant Agreement (TF055093), August 9, 2005
- Mid-Term Review Report, June 2009
- Project Implementation Support Reports (13 reports 2003-2011)
- ISR mission aide-mémoires (11 reports 2004-2010)
- Audit reports and auditors' management letters 2005-2009
- Country Assistance Strategy, World Bank reports for 2003-2007 and 2008-2011
- Gouvernement du Tchad: *Document de Stratégie de Croissance et de Réduction de la Pauvreté: SNRP II: 2008-2011*, April 2008
- Gouvernement du Tchad/GTZ: *Recueil des Lois et Réglements sur la Décentralisation*, 2008
- Republic of Chad: *Poverty Reduction Strategy Paper 2003-2006*. June 2002.

CB EMP manuals:

- *Manuel d'Exécution*, juin 2005;
- *Manuel de suivi et evaluation du projet*, janvier 2006

List of studies prepared during C-B EMP implementation:

- *Evaluation à Mi-Parcours*, Abdoulaye Sène, Mouimou Djekoré et Mahamat Abouna, Novembre 2009
- *Rapport de Mission de Suivi des Réalisations du Volet Gestion Communautaire des Ecosystèmes (GCE), Régions de Mayo-Kebbi Ouest et Logone Occidentale, Cellule Permanente, Mécanisme de Suivi de la Réunion Sectorielle*, Mars 2011
- *Avant-projet de Schéma d'Aménagement du Site du Lac Léré, SERF (Etudes- Conseils- Formation)*, March 211
- *Avant-projet de Schéma d'Aménagement du Bahr el Gazel Sud, SERF (Etudes- Conseils- Formation)*, March 211
- *Avant-projet de Schéma d'Aménagement du Site de Abdi, SERF (Etudes- Conseils- Formation)*, March 211
- *Avant-projet de Schéma d'Aménagement du Site de Mandelia, SERF (Etudes- Conseils- Formation)*, March 211
- *Evaluation de la Politique de Sauvegarde Environnementale de la Banque Mondiale pendant la mise en œuvre du Volet de Gestion Communautaires des Ecosystèmes*, Djibril Doucouré, Octobre 2011
- *Evaluation du Système de Suivi & Evaluation du Projet de Gestion Communautaire des Ecosystème du Tchad*, Ersnt Lust, 2 novembre 2011
- *Schéma d'Aménagement et de Gestion des Ecosystème du Site du Lac Wey, COSSOCIM.*, December 2011
- *Etude de Faisabilité de la Mise en Place d'un Observatoire National pour la Gestion des Ressources Naturelles (ONAREN), Volumes 1, 2 et 3*, December 2011
- *Evaluation de la Politique de Sauvegarde Environnementale de la Banque Mondiale pendant la mise en œuvre du Volet de Gestion Communautaires des Ecosystèmes*, Djime N'Gaba Techere, Consultant National, Décembre 2011

- *Evaluation Indépendante des Résultats et des Impacts du Volet GCE du PROADE L, et leur Appréciation par les Bénéficiaires, Boubacar N'Diaye, Consultant International, Katiang Lgnaba, Békayo Samuel, Alladoum Saïnibi et Soulona Daniel, Consultants Nationaux, Décembre 2011*

UNDP: *Human Development Report 2011*.

World Bank: *Country Assistance Strategy, World Bank report for 2004-2006*(Document No. 26938-D)

World Bank: *Regional Integration Assistance Strategy for Central Africa*. January 10, 2003.

## Annex 7: Map

