

CHAD
Community Based Integrated Ecosystem Management Project Under PROADEL

GEF Project Brief

Africa Regional Office
AFTS4

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Sector Manager: Joseph Baah-Dwomoh

Country Director: Ali Khadr

Project ID: P066998

Lending Instrument: Adaptable Program Loan (APL)

Sector(s): Other social services (60%), Sub-national government administration (20%), Central government administration (20%)

Theme(s): Decentralization (P), Rural services and infrastructure (P), Other human development (P), Participation and civic engagement (S), Poverty strategy, analysis and monitoring (S)

Global Supplemental ID: P078138

Sector Manager/Director: Joseph Baah-Dwomoh

Team Leader: Noel Rene Chabeuf

Lending Instrument: Adaptable Program Loan (APL)

Focal Area: M - Multi-focal area

Supplement Fully Blended? No

Sector(s): General agriculture, fishing and forestry sector (100%)

Theme(s): Biodiversity (P), Water resource management (S), Other environment and natural resources management (S)

Program Financing Data

APL	Indicative Financing Plan					Estimated Implementation Period (Bank FY)		Borrower
	IDA US\$ m	%	Others US\$ m	GEF	Total US\$ m	Commitment Date	Closing Date	
APL 1 Loan/ Credit	23.00	50.0	17.00	6.00	46.00	11/12/2003	10/31/2008	Government of Chad
APL 2 Loan/ Credit	20.00	40.0	30.00	0	50.00	07/15/2007	06/30/2012	Government of Chad
APL 3 Loan/ Credit	20.00	33.3	40.00	0	60.00	03/15/2011	12/31/2015	Government of Chad
Total	63.00		93.00		156.00			

Loan Credit Grant Guarantee Other:

APL2 and APL3 IDA amounts are indicative.

For Loans/Credits/Others:

Amount (US\$m): US\$ 23.00 m of which US\$ 17 m Grant and US\$ 6 m Credit.
Global Environment Facility Grant of US\$ 6m.

Proposed Terms (IDA): Standard Credit

Financing Plan (US\$m):	Source	Local	Foreign	Total
BORROWER		15.89	0.00	15.89
GLOBAL ENVIRONMENT FACILITY (GRANT)		5.53	0.47	6.00
IDA		3.00	3.00	6.00
FRANCE: FRENCH AGENCY FOR DEVELOPMENT		2.45	3.00	5.45
LOCAL COMMUNITIES		1.66	0.00	1.66
IDA GRANT FOR POOREST COUNTRY		16.52	0.48	17.00
Total:		45.05	7.20	52.00

Borrower/Recipient: REPUBLIC OF CHAD

Responsible agency: MINISTRY OF LAND MANAGEMENT, URBANISM AND HABITAT

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Estimated Disbursements (Bank FY/US\$m):

FY	2004	2005	2006	2007	2008	2009
Annual	1.15	4.30	5.20	7.20	4.00	1.15
Cumulative	1.15	5.45	10.65	17.85	21.85	23.00

Project implementation period: 4 years

Expected effectiveness date: 03/31/2004 **Expected closing date:** 09/30/2008

LIST OF ACRONYMS

AEDE	Agency for Domestic Energy and Environment
AFD	French Agency for Development (Agence Française de Développement)
APL	Adaptative Program Loan
ASPOP	Support to Agricultural Services and Producers Organizations Project
BSAP	National Biodiversity Strategy and Action Plan
CBLT	Committee for the Lake Chad Basin
CDD	Community Driven Development
CEFOD	Training and Study Center for Development
CELIAF	Cellule de Liaison et d'Information des Femmes du Tchad
CNAR	National Center for Research Support
EC	European Commission
FACIL	Local Development Fund
FOSAP	Federation of Small Anthropology Programs
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GTZ/KfW	German Cooperation
IDA	International Development Agency
IEM	Integrated Ecosystem Management
LCB	Lac Chad Basin
LDP	Local Development Plan
OP	Operational Procedure
M&E	Monitoring and Evaluation
NEAP	National Environmental Action Plan
NGO	Non Governmental Organization
PAD	Project Appraisal Document
PCGRN	Natural Resources Management Program in
PIDR	Rural Development Support Plan
PO	Producer Organization
PROADEL	Local Development Program Support Project
PRODALKA	GTZ Rural Development Program of Mayo-Dallah, Lac Léré and Kabia
PRSP	Poverty Reduction Strategy Paper
PSMCs	Producer Services and Management Centers
REIMP	Regional Environmental Information Management Program
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
WWF	World-Wide Fund for Nature

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A. Program Purpose and Project Development Objective

1. Program purpose and program phasing:

The Government of Chad finalized its Poverty Reduction Strategy in June 2003 and designed the Local Development Program as part of its implementation. The purpose of the program is to reduce poverty and promote sustainable development in rural areas by empowering communities and decentralized authorities and improving access to basic services and economic opportunities at the local level.

The complexity of needed institutional reforms and Chad's size suggest the use of Adaptive Program Lending, which allows flexible, long-term (up to 12 years) intervention through three phases, the second two triggered by intermediate results (see section B.4). The program would evolve from pilot activities in a few areas to a full-fledged national program in a clearly established framework of decentralization by progressively adapting activities to build experience and capacity.

- **Phase 1.** The Local Development Program Support Project (PROADEL) would progressively build on preliminary results and refine its approach and mechanisms for the next steps. This phase would cover 19 of 47 *départements* in Chad (see map in annex 16). PROADEL would emphasize community development in oil and cotton production area (11 southern *départements*), consolidate the experience of village-based management of wood resources around N'Djamena and Moundou, and pilot models for participatory development in pastoral areas (5 northern *départements*). And PROADEL would help the Government of Chad complete the decentralization framework and support democratically elected decentralized authorities. During this phase the project would also build on current World Bank-financed pilot initiatives such as the Local Development Fund (FACIL), Agency for Domestic Energy and Environment (AEDE), Agricultural and Livestock Services Project (PSAP), and the Federation of Small Anthropology Programs (FOSAP).
- **Phase 2.** The program would be scaled up with more intensity in pastoral areas, and coverage would be expanded to 32 *départements*, while continuing to support fiscal decentralization and implementation of national training and capacity building for newly elected decentralized authorities. Funds would be progressively channeled through these elected decentralized authorities.
- **Phase 3.** The project would achieve national coverage, consolidating the successes of the previous phases and contributing to the implementation of policy measures needed to ensure the long-term sustainability of the process.

The long-term vision for rural areas is capable of and representative decentralized authorities and empowered rural communities are working together to plan and control their development by managing resources, including future oil revenues allocated to priority sectors, in a clearly established framework of decentralization.

2. Project development objective: (see Annex 1)

PROADEL (Phase 1 of the Local Development Program) would assist the Government of Chad in designing and implementing a decentralized and participatory financing mechanism that empowers local communities and decentralized authorities to manage development funds by (i) strengthening the capacity and responsibility of local communities and decentralized authorities, (ii) implementing demand-driven subprojects, and (iii) supporting the emerging process of decentralization.

3. Global objective: (see Annex 1)

Chad's national and rural development priorities strongly emphasize the imperative to ensure the long-term health and productivity of its natural resource base. The Government of Chad recognizes that this goal is more likely to be achieved through the direct participation of local communities in the monitoring and management of ecological processes at ever larger geographical scales, as well as through micro-investments that can generate broad, multiple benefits to diverse stakeholders. It is improbable that a purely demand-driven project could effectively address Chad's multiple

environmental challenges, nor, given Chad's high level of rural poverty, that communities would prioritize medium and long-term investments in land and NRM management without incremental GEF funding. In response to these challenges and barriers, the global objective of the GEF project is to better enable local communities throughout Chad to combat desertification, preserve biodiversity, and maintain the productivity of natural assets within fragile, yet globally-significant ecosystems, as a result of the introduction of community-driven, integrated environmental management principles and planning. Through a variety of interventions, implemented under the umbrella of the IDA-funded Local Development Support Project (PROADEL), the project will introduce, replicate, and help sustain integrated ecosystem management activities in Chad through innovative approaches and capacity building. These activities aim to foster holistic and cross-sectoral approaches to local economic development and local environmental management that can simultaneously address global environmental challenges.

The project will generate global environmental benefits in multiple GEF focal areas—with emphasis being placed on biodiversity conservation and sustainable land management—while simultaneously advancing the Government of Chad's main development objectives as well as its commitments to a number of major international environmental conventions. The project will introduce, replicate, and help to sustain integrated ecosystem management in Chad through a variety innovative approaches and capacity building activities. These activities aim to foster *holistic and cross-sectoral approaches* to local economic development and local environmental management that simultaneously address global environmental challenges.

4. Key performance indicators: (see Annex 1)

A monitoring and evaluation manual would be developed to guide information collection and assessment of the progress and impact of the project. Progress toward development objectives and global environmental objectives would be measured by key impact indicators: (i) living conditions (improvement in access to basic social services and infrastructures, permanent jobs created, income levels); (ii) restoration, protection, and conservation of globally-significant ecosystems and habitats and environmental assets therein (iii) local institutional capacity (quality of community development plans and implementation, transparency in management of decentralized decision entities); and (iv) central institutional capacity (definition of a coherent regulatory framework, adoption of a master plan to implement decentralization). Key performance indicators to be tracked for the GEF activities include: number of LDPs that reflect IEM principles; number of community-based natural resources subprojects implemented that actively promote conservation of globally significant biodiversity or joint management of protected areas; number of LDPs that actively promote conservation of globally significant biodiversity or joint management of protected areas; level of endangerment of one or two endemic mammals, birds and plant species in each of the priority zones reduced by at least one category; increase in total hectares under protected areas network; incremental adoption of sustainable agricultural techniques (i.e. direct seeding) in targeted areas, and percentage increase in total area previously classified as forest under rehabilitation or active reforestation.

Some baseline data are available from detailed feasibility studies in PROADEL's *départements* and from the current ECOSIT household survey. Censuses would be conducted regularly to monitor the impact of the project, and a beneficiaries assessment would be completed at the end of the project. PROADEL would also use participatory appraisal tools to measure community satisfaction and subproject implementation. Some data would be regularly provided by other monitoring systems, such as the Poverty Monitoring System and the Rural Sector Monitoring System. The environmental information systems strengthened by GEF incremental finance will help to measure performance indicators related to natural resource management and ecosystem quality. These systems will measure trends in performance and impact indicators, such as: number and extent of endangerment of threatened species; traditional fuelwood and charcoal usage; extent of cropping areas; water and

fodder availability for livestock and local and migratory wildlife; and extent of forest rehabilitation and increased area of land under active reforestation. Progress in achieving the global operational objectives would be monitored through the following key performance indicators and targets.

Performance Indicator	Target
Participation of local communities in planning and coordinating ecosystem management activities	Majority of LDPs in targeted areas reflect IEM principles or actively promote conservation of globally significant biodiversity or joint management of protected areas
Territory under protected areas	10% increase in total hectares under protected areas network effectively managed through strengthened and/or new management plans
Introduction of sustainable land management innovations in targeted areas	Adoption of sustainable agricultural techniques (i.e. direct seeding) in 75% of targeted areas
Retardation of deforestation	20% increase in total hectares previously classified as forest under rehabilitation or active reforestation
Threat reduction for endangered species of global significance	Level of endangerment for two or three endemic mammals, birds and plant species in each priority zone (e.g., orxy, addax, manatee) reduced by at least one category

Progress assessment during the first phase of the program would be qualitative and process-based (establishment of Departmental or Subprefectoral Decision and Approval Committees, effective community participation in decision-making, inclusion of women and underprivileged groups in decision-making, quantity and quality of Local Development Plans established, efficiency of the approval process of subprojects). As results are obtained and lessons from experience can be applied to subsequent phases, performance indicators would become more quantitative and output-related (management capacity at local level, implementation of development activities, deconcentration of technical services, effective service delivery).

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)

Document number: 19365-CD **Date of latest CAS discussion:** January 11, 2001

The Bank Group's Country Assistance Strategy aims to help Chad reduce poverty by (i) strengthening governance and using its oil resources more effectively (ii) developing greater, more inclusive, sustainable non-oil-income-earning opportunities. PROADEL would support decentralization and strengthen the rule of law, a critical outcome of the first pillar of the strategy. The second pillar of the strategy aims to expand opportunities for the poor and to empower communities to formulate their needs in basic infrastructures and to manage and maintain infrastructure. In particular, the Bank seeks to contribute to the following outcome: 250 subprojects benefiting communities in 10 *departments* implemented based on their approved Local Development Plans and operated and maintained in a sustainable manner. PROADEL would be the main instrument to achieve this outcome.

An explicit theme in the Bank's strategy is that operations funded by the International Development Association (IDA), and the Agricultural Services and Producer Organizations Project (ASPOP) in particular, should improve Chad's ability to use its oil revenues for effective poverty reduction. It is

expected, as indicated in para. 22(i) of the Letter of Sector Policy, signed on October 27, 2003, that a portion of oil revenues would finance producer organizations' needs, as identified by the participatory approach implemented under Rural Development Support Program projects.

For fiscal 2004 Chad was allocated IDA grants of US\$17 million equivalent because of its status as a “poorest country,” and this amount would be fully applied toward financing the Local Development Program Support Project. Chad’s grant allocation was calculated as 17% of the total amount of Chad’s IDA lending program in fiscal 2004, in line with fiscal 2004 Grant Implementation Guidelines. This project was selected for grant financing because of its importance in the Bank’s program in Chad and its expected strong poverty alleviation impact.

The grant money is aimed at (i) improving access to basic services in rural areas (subprojects financed under Project Component 1), (ii) strengthening communities (Project Component 2), and (iii) strengthening decentralized authorities (Project Component 3.2). IDA support to these activities would be financed entirely by grant funds.

Chad’s fiscal 2004 grant allocation was not sufficient to fully finance this project, and the grant would be supplemented by US\$6 million credit financing. This money is aimed at other project activities that would support mainly project management, the monitoring system, and capacity building of administrative services involved in local development and decentralization.

World Bank Rural Development Strategy for Chad

The proposed project is based on the Community-Driven Development (CDD) approach. It is in line with the current Bank strategy for rural development in Chad (review meeting on November 30, 2000), which recommended the identification of a national CDD program. The ultimate goal of the Bank’s strategy is to support the Government of Chad in its efforts to fight poverty by focusing on rural development and management of natural resources, with strong and effective participation of beneficiaries. Bank assistance emphasizes the importance of strengthening local capacity and increasing stakeholders' involvement by developing consensus on priority objectives and implementing clear operational strategies to meet those objectives, with particular focus on (i) completion of the unfinished agenda of structural reform, (ii) decentralization and empowerment of local communities and farmers organizations to manage their assets and become active partners in the development process, and (iii) concentration of limited government resources on critical services and investments.

1a. Global Operational strategy/Program objective addressed by the project:

The project will generate global environmental benefits in *multiple GEF focal areas*—with emphasis being placed on biodiversity conservation and sustainable land management—while simultaneously advancing the Government of Chad’s main development objectives as well as its commitments to a number of major international environmental conventions. GEF activities are specifically linked to its strategic priorities under OP#12 in the following ways:

Biodiversity Conservation. The natural resource management practices of communities participating in the first phase of the PROADEL have the potential to positively or negatively impact some of the country’s most environmentally fragile areas. Chad’s unique, globally important ecosystems are at risk of serious irreversible degradation. At the same time, it must be recalled that, although environmental protection is a priority in Chad, resources are scarce and meeting basic needs is a more urgent priority for much of the population. Therefore, incremental GEF financing will be necessary to ensure that local development plans integrate biodiversity conservation issues.

GEF activities aimed at conserving biodiversity will be limited to three of the country's major ecological zones and will proceed along a two-tiered strategy. At one level, collaboration between key stakeholders, including a super-structure of concerned communities, will be built to pursue integrated ecosystem management priorities at larger spatial areas. Support will be provided to strengthen the institutional and legal framework for decentralized natural resource management. In order to ensure for a more equitable sharing of global biodiversity, activities will include strengthening the management plans for existing and imminently planned protected areas, along the approach of decentralized environmental governance and community co-management. On another level, targeted capacity building will be extended directly to communities for strengthening the protection and conservation of protected areas under a joint management approach. In addition, co-financing of eligible subprojects related to biodiversity conservation and sound community management of natural resources will be supported. Some of the local development subprojects likely to be eligible for GEF incremental funds include, *inter alia*, the development of protected areas management plans, reforestation and rehabilitation of gallery forests and the establishment of on-farm or communal windbreaks to prevent dune advancement, community grazing management plans, development of grazing corridors and fodder buffer zones, and farm and off-farm investments that increase biodiversity and soil fertility.

For strategic reasons and resource limitations, geographical emphasis or priority will be, at least initially, placed on three priority zones from among the following: Lake Fitri, Siniaka-Minia Fauna Reserve, Mandou Forests and Greater Manda National Park Area, Bainamar & Larmanaye Forests in Monts de Lam, and West Mayo-Kebbi. These areas contain a number of significant protected areas and peripheral buffer zones that harbor globally significant environmental assets and highly threatened species, such as the manatee, addax, oryx, and Derby eland. Among these include the Lake Fitri Biosphere Reserve, Manda National Park, Binder-Léré Game Reserve and Yamba-Berté National Forest. For additional details on the biodiversity assets to be protected under the project refer to description of priority zones, List of Eligible Departments under the PROADEL/GEF Project in Table 1.1, and map of intervention areas which follow the specific activity component descriptions.

Land degradation

More sustainable agricultural cultivation and land management techniques are another priority area of the GEF activities. Additional support to the baseline activities will increase the dissemination and uptake of land management technologies and practices that will enhance soil fertility, reduce erosion and water run-off, reduce release of greenhouse gases to the atmosphere, and improve landscape planning and management. Some of the specific management practices that will be supported include: direct seeding, "*cordons pierreux*", crop-livestock integrated pilots, better crop management, rainwater harvesting, reclamation of arable lands, integrated plant nutrition management, better residue and manure management, and improved grazing management. Moreover, the capacity building and co-financing of subprojects will aim to introduce direct seeding and other agro-forestry techniques that will increase soil fertility and soil organic carbon retention. With GEF Block-B support, targeted research is being undertaken to identify, specifically, the most appropriate, economically viable, and environmentally beneficial sustainable land management interventions for each of the targeted ecological zones, again, paying particular attention to three priority zones of intervention. In the environs of Mandou and Sarh, the largest cities after the capital, alternative energy carriers to fuel wood and traditionally produced charcoal will be promoted, as well as more sustainable harvesting and commercialization of fuel wood through regular replanting or the introduction of user fees/taxes.

Ancillary Benefits

Climate change is not a primary focal point of the project. Nevertheless, GEF incremental activities that promote sustainable land management would have positive climate benefits. It is expected that Chad's net greenhouse gas emissions balance would be lowered as a result of GEF activities through two main mechanisms: a reduction in deforestation through fiscal incentives and other support for alternative household energy carriers than traditional fuel wood and charcoal, and the introduction and dissemination of agro-forestry and sustainable land management practices, such as no-till farming, that would increase the retention and sequestration of carbon in Chadian soils. These activities link global climate protection efforts to local development priorities, thereby contributing to the goals and spirit of the United Nations Framework Convention on Climate Change with respect to least developed countries.

Although also not a primary focal point targeted by the project, the elaboration of integrated ecosystem management plans and the aggregation of community sub-projects having sustainable land management or reforestation aims could have a beneficial impact on preserving the quality and flow of water to the Lake Chad basin, a globally significant trans-boundary watercourse, via the Chari-Logone watershed. Water input to the Lake is seasonal, with the majority originating as precipitation on the Adama Plateau. Chad's major rivers are the Chari and the Logone and their tributaries, which flow from the southeast into Lake Chad. Both river systems rise in the highlands of Central African Republic and Cameroon. The Chari-Logone system, which flows into Lake Chad from the Southeast, contributes about 90 percent or more to total water inflow to Lake Chad. Through improved agricultural cultivation practices, including water management, as well as reforestation and other soil erosion control measures, incremental GEF activities will help to reduce sedimentation and water flow deterioration in those areas which abut the Logone and Chari Rivers. In this way, the project will reinforce and build synergies with the objectives of the international, GEF-supported Lake Chad Basin Project.

Annex 18 contains a map outlining the tentative priority zones for intervention and Annex 17 provides more detailed information on the global environmental challenges that would be addressed by the project within each of the four main sub-regional ecosystems.

Priority Zones of Intervention

Integrated ecosystem management activities and plans will be prioritized in three priority zones of intervention. Currently, a shortlist of five zones are under consideration: Lake Fitri, Siniaka-Minia Fauna Reserve, West Mayo-Kebbi, Mandoul Forests and Greater Manda National Park Region, and Bainamar & Larmanaye Forests in Monts de Lam. This list will be narrowed down to three during the course of project appraisal. The criteria to be applied for final selection of priority zones shall be:

- Full project coverage of major environmental challenges in the country and root causes of unsustainable development
- Diversification among major sub-regional ecological zones (i.e., Sudanian, Sahelian, Sahelo-Sudanian)
- Equitable geographical distribution of project activities
- Assurance that GEF activities under PRAODEL supplement and do not duplicate the efforts of other projects

2. Main sector issues and Government strategy:

Main sector issues

With 80% of the population living on less than \$1 a day, Chad is one of the poorest countries in the world. Poverty is most prevalent in rural areas, where about 80% of the population resides. Average annual income per capita is estimated at FCFA 98,000, with a marked disparity between rural areas (FCFA 73,000) and urban areas (FCFA 180,000). Agriculture employs 80% of the active work force, contributes about 40% of national income, and accounts for almost 50% of the value of exports. Thus rural areas must be the primary target of interventions aimed at reducing poverty and increasing growth. An analysis conducted in 1998 in preparation for the rural development roundtable and confirmed by the preidentification multidonor mission in April 2000 identified four main constraints to rural growth:

Issue 1: Weak and inefficient provision of basic services to the rural population. On average, only 30% of the population has access to safe water and between 25% and 70% of the pumps are dysfunctional due to poor equipment management and maintenance. Education shows persistent weaknesses: (i) poor infrastructure and insufficient number of schools; (ii) wide regional disparities, with gross enrollment rates of less than 42% in most of the northern and eastern provinces; (iii) gender disparity; (iv) poor education quality; (v) high disparity in unit costs; and (vi) persistently low post-primary education enrollment. The health situation is particularly precarious in rural areas, with one doctor per 41,000 inhabitants nationally compared with one doctor per 3,904 inhabitants in N'Djamena. Half of births are assisted in urban areas, compared with 16% in rural areas. The prevalence of HIV/AIDS is increasing, reaching 5% of adults nationally, and more than 10% in some areas, compared with 2.9% in 1994. The road network is extremely limited, with a low roads normalized index value of 21. Chad has 300 kilometers of fully paved roads out of 6,200 total kilometers, and most unpaved roads are not accessible year-round, which seriously affects food security and the cost of agricultural products (transport charges can be as much as 70% of marketing costs). Almost 100% of the population relies on woodfuels for its energy needs. And the rural production of firewood and charcoal contributes little to the communities where the resources are located because a supportive regulatory framework and local management structures are lacking. Chad's main environmental threats—desertification, deforestation, and soil and water quality deterioration—are clearly exacerbated by poor access to, and insufficient regulatory frameworks and local management structures for, sustainable energy services. To meet basic human energy needs, almost the entire population depends upon the unsustainable consumption of wood fuel and charcoal. As a result, “rings” of desertification and deforestation have developed around major population centers (e.g., N'Djamena, Ati, Abéché, and Bongor); moreover, these practices add to Chad's net greenhouse gas emissions and reduce the fertility and carbon storage capacity of its soils.

Issue 2: Ecosystem fragility exacerbated by demographic pressures and land-use conflicts. Lying at the convergence of four major continental ecological zones (i.e., 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 the African Continent (e.g., large mammals and reptiles, migratory birds, fish, and unique desert, savanna, and forest vegetation formations). Likewise, the Logone-Chari river system emptying into Lake Chad is a watercourse of great global and regional importance. As the largest fresh water reserve in the area, the extensive Lake Chad Basin (LCB) supports a mosaic of societies and cultures to sustain agricultural and pastoral activities, often at subsistence level. Yet the basin has been under increasing pressure from progressive desertification and environmental degradation accelerated by human demand for land and water. Other rivers and lakes (e.g., Lake

Fitri), as well as pockets of oases in the Sudanian and Sahelian deserts, provide key habitats for numerous species. Many of these may be endemic and are considered to be endangered. According to WCMC, 6 animal species are currently critically endangered (among which the addax, the northern white rhinoceros and the black rhinoceros), 6 endangered (among which the Addra and Rhim gazelle, the giant otter and the elephant) and 16 vulnerable, while 1 is now extinct in the wild (the Sahara oryx). At the same time, the unique location and functions of Chadian ecosystems renders them fragile and highly sensitive to environmental change, including climatic variability. For example, droughts and bush fires are threatening the viability of rangeland vegetation, and by extension, the wild and domestic animals whom are dependent on it. Moreover, integrated management of Chad's ecosystems is a greater challenge, particularly at larger spatial levels, since they lie at the confluence of different ecological sub-systems. On top of these challenges, demographic pressures and the growing pains of economic development are creating a vicious cycle of mounting ecological damage and low rural productivity. The tolerance of major ecosystems is being pushed to the brink by the poor management of water resources, the progressive depletion and declining fertility of agricultural soils, and the extensification of agricultural production and the encroachment of human settlements on natural habitats. Land-use conflicts between pastoral and agricultural activities have intensified, contributing to migration pressures and undermining social cohesion. The perpetuation of open-access land-use policies threatens the integrity and sustainability of Chad's natural assets, particularly its forests, woodlots, and pasturelands. For example, as areas continue to experience population growth and new migration (e.g. particularly the Sudanian zone), natural vegetation in wetlands, prairies, and woodlands are being systematically cleared for food production. These unsustainable patterns are reinforcing poverty and curbing the future economic growth potential of the country, particularly in the rural sector.

In terms of Chad's key environmental threats, the Government of Chad is fully cognizant of the value of an integrated ecosystem management approach to respond to its key environmental threats; however, a number of barriers hinder the ability to translate this strategic vision into action. First, limited funding mechanisms exist to support IEM processes at local levels and few micro-finance programs have ever focused on environmental issues. While climatic and demographic factors are among the root causes of desertification, the lack of appropriate management of natural resources confounds the situation and is the aspect most open to immediate improvement. With increased funding, available techniques for reducing soil erosion, improving soil fertility, and increasing woody biomass could be adopted more widely. Second, weaknesses in the legal framework and low capacity of decentralized governmental institutions exists. The Chadian legal framework regarding environmental management could strongly benefit from some additions or modifications, especially those pertaining to land tenure and security. Moreover, Chad's capacity to manage its environment, and particularly its protected areas, is currently very limited. Third, the Government lacks the analytical and information basis for long-term monitoring of environmental issues and targeting of scarce resource to highest impact interventions. For example, only basic data on protected areas and the value of natural capital is available, and much of this data is quite outdated.

- Issue 3: Weak organization of rural communities and limited involvement in decisions concerning their development, including natural resource management. The Government of Chad has started decentralization, but it is still in the early stages. There are no elected decentralized authorities yet, and decision centers are still out of reach for much of the rural population. A few projects have set up informal local development decision bodies (such as the FACIL and the AEDE), but they remain in the pilot stage and depend on international donors for financial support. The range of environmental challenges impeding Chad's sustainable economic development are intimately connected to weak local governance structures, particularly in the domain of natural resources management. Decentralized mechanisms are important, as national capacity to manage protected areas and larger

ecosystems is very limited. Indeed, fewer than 500 agents in the Ministry of Environment and Water are charged with environmental and/or water management in the entire country, and budgetary constraints are severe. Weak decentralized natural resources management capacity in poverty-stricken areas aggravates existing human migration pressures that can be destabilizing. Weak decentralized environmental governance has contributed to a rise in conflict over land use, particularly between demand for agricultural activities and existing wildlife and protected areas. At the same time, in regions with stronger growth prospects (e.g., the Sahelo-Sudanian zone), and hence a higher level of attractiveness to economic refugees, the initiation of long-term frameworks for natural resource management planning at an early stage of economic development may be pivotal to the prevention of irreversible environmental damage, such as soil erosion and the degradation of groundwater. More generally, as the underlying basis and outlook for economic growth in Chad continues to improve, it has become increasingly critical that conservation issues and sound natural resource use frameworks be integrated more effectively into local development planning. This is vital in an economy where farming, stockbreeding, and fishing account for 40 percent of GDP, employ 80 percent of the active population, generate over 59 percent of household income in rural areas, and provide 80 percent of export revenue. The interconnected mix of problems outlined above demands holistic approaches and integrated frameworks that can balance the ecological, economic, social, and financial needs of communities.

Issue 4: Weak rural financial services. The vast majority of small farmers and small entrepreneurs have difficult or no access to credit. There is no national policy on micro-finance, and local banks have demonstrated little interest in financing rural sector activities. Nor do local banks have decentralized networks of branches or agencies to facilitate access by rural clients. The shallowness of both formal and informal rural financial markets has hindered modernization of the rural sector and the transition to more lucrative non-farm activities.

Government strategy

Government strategy to address the sector-specific issues:

The Government's national rural development strategy was presented to the main donors during the Geneva IV Sectoral Consultation on Rural Development in June 1999. The objective of the strategy is to increase production in a sustainable way that preserves the environment while reinforcing institutional and human capacities. The key elements of the strategy are:

(i) ***Increasing agricultural productivity and improving agricultural marketing.*** This includes (i) better delivery of agricultural extension and research services, more access to agricultural inputs and credit, (ii) enhanced effectiveness of high-potential products, and (iii) improved rural basic infrastructure.

(ii) ***Providing support to rural organizations.*** This includes strengthening the capacities of producer organizations and promoting the emergence of new ones at the grassroots, district, and national levels—with particular emphasis on women and transhumant herders.

(iii) ***Promoting sustainable management of natural resources and restoration of production potential.*** This includes (i) consultation and consensus building with rural communities; (ii) promotion of better soil and water management; and (iii) management of rural space, conservation of biodiversity, and prevention of desertification and deforestation.

(iv) ***Improving the effectiveness of the public sector.*** A key part of Chad's development policy, the effectiveness of the public sector concerns more than rural development. Achieving this objective requires (i) redefining the Government's role in policy formulation, sectoral planning, and regulation;

(ii) reorganizing public services, through deconcentration of their structures and decentralization of decision-making and management; and (iii) optimally allocating resources through multisectoral and multithematic approaches developed in a participatory framework.

(v) ***Improving the provision of basic services.*** This point concerns the rural sector in its broader sense and is a precondition for the success of the rural development strategy. It requires the intervention of other ministries besides the Ministry of Agriculture, the Ministry of Livestock, and the Ministry of Environment and Water and includes (i) strengthening primary schools in rural areas, (ii) improving primary health care, (iii) strengthening the communications network (transport, media, telecommunications), and (iv) improving access to energy sources other than woodfuel.

To implement its rural development strategy, the Government has created a Rural Development Support Program. Within the Rural Development Support Program framework, and as stated in the CAS, the Bank is supporting the rural development strategy and cotton reform strategy with ASPOP and PROADEL. Integration of GEF activities will improve the design of PROADEL and ASPOP components, while serving as an umbrella framework under which a range of interventions and collaborations can be coordinated to advance the Government's key strategies in a manner that can realize global environmental benefits.

PROADEL AND ASPOP are complementary but support different parts of the development and reform strategies. They aim to create sustainable growth in agricultural production, provide support to producer organizations, and support the decentralization and delivery of agricultural services. ASPOP specifically addresses agricultural productivity and marketing, rural organizations, and management of rural space and the public sector, while the thrust of PROADEL is decentralization and community development. ASPOP aims to increase agricultural production and productivity by improving farmers' access to productive infrastructure and equipment, improving farming systems, promoting agricultural diversification, and strengthening the capacities of agricultural services (capacity building to strengthen the technical ministries, strengthening capacities of producer organizations, and private sector development). PROADEL supports the development of community (public) property—rural roads, health centers, and schools—whereas ASPOP supports private farmers' own investments. The two projects work together to coordinate their annual work programs so that community development (rural roads) and productive investment (irrigation rehabilitation and technology transfer) go hand in hand. The synergy of the two projects is detailed in C.4 and in annex 11.

Natural Resources Management

The Government of Chad's national policies and priorities, particularly in the sphere of rural development, strongly emphasize the need to ensure for the long-term health and productivity of the country's natural resources base. The Government of Chad strongly supports policies and investments that can effectively strengthen environmental protection and integrate sustainable development principles into decentralized natural resource management structures and plans. The Rural Development Policy Letter pledges to more equitably allocate future oil revenues to rural development, including the financing of community sub-projects identified in the framework of the Rural Development Support Program (PIDR). The Government plans to devote at least half of new sector resources to the domain of natural resources management and restoration of natural capital so as to ensure long-term productivity growth. As mandated by the 1996 Constitution, the Government is also engaged in decentralization and new decentralization laws ascribe rural communities a major role in the management of natural resources.

The Decentralization Process

PROADEL and its incremental GEF activities would strongly support the Government of Chad's decentralization agenda, which commenced in 1996. A six-level administrative organization has been defined (*nation, région, département, sous-préfecture, commune, and communauté rurale*), but the legal and regulatory framework has not yet been completed, with some critical legal documents (such as those regarding the transfer of responsibilities and resources to local governments) still to be finalized. PROADEL would support the Government of Chad in completion of the regulatory framework and implementation of decentralization. PROADEL would be concurrent with decentralization, with the project's institutional arrangements designed to comply with the decentralization framework, especially with regard to the future *communautés rurales* created under a June 2002 law.

The Government also seeks to achieve the objectives and implement interventions under its National Environmental Action Plan (NEAP) largely through decentralized development plans and projects conceived under the framework of the Rural Development Strategy and associated Rural Development Support Plan (PIDR). In this way, it is believed that resources will be allocated in a manner that aligns the country's national environmental objectives and global environmental aspirations with its local development priorities. Plans formulated under NEAP and the PIDR that enhance productive activities and simultaneously promote biodiversity conservation, soil fertility and carbon storage, and biomass growth and carbon sequestration will be given priority consideration by the Government. The Government of Chad has also recently adopted a National Biodiversity Strategy and Action Plan (BSAP). The five core objectives of the BSAP are to: (i) improve knowledge and monitoring of biological diversity; (ii) inventory ecosystems and threatened species; (iii) increase use of substitution resources; (iv) adopt techniques for a more sustainable exploitation of biodiversity; and (v) promote a more equitable sharing of the benefits of biodiversity exploitation. In 2002, the Government also approved a National Action Plan to Combat Desertification. This strategy is designed to safeguard Chad's most important and threatened ecosystems (e.g. Lake Chad, Lake Fitri, the Ouadis, oasis, and the karolands), while promoting policies and building capacity to preserve the production potential of the country's most precious natural resources—land and water.

The Poverty Reduction Strategy

The Poverty Reduction Strategy Paper (PRSP) was adopted by the Government in June 2003. PROADEL and its incremental GEF activities have been designed to support the strategy's implementation. The PRSP clearly articulates three fundamental challenges to realizing the country's targets and long-term development vision: ecological threats and weak national capacity for environmental protection; the need to effectively consolidate ongoing decentralization efforts; and effective integration of sustainable development considerations into economic development policies. One of the pillars of the Government's PRSP strategy is to promote an integrated vision of rural development that can effectively address environmental issues and natural resources management within frameworks that also address sustainable livelihoods and the determinants of economic growth. Local PRSP consultations conducted in recent years reveal that environmental degradation is recognized as having a strong relationship to poverty in most districts and regions, and that poor natural resources management has been articulated by communities as a serious, recurring concern.

Over the next 15 years, Government policies aim to reinforce capabilities and strengthen the regulatory framework for natural resources management, through:

- promulgating laws transferring some natural resource management prerogatives to users;
- strengthening institutional capacity of agencies responsible for natural resources
- installing local natural resource management committees;
- establishing an environmental information system;

- consolidating an action plan for improving household energy management in connection with global environmental protection initiatives
- drafting a national program to galvanize the population to protect the environment.

Increased participation of rural communities in local development promoted by PROADEL complies with an explicit recommendation for the promotion of governance under the first national objective of Chad's PRSP. PROADEL also aims to link participation of communities with decentralization, which is also planned under the same strategic objective of the PRSP. More specifically PROADEL components would establish links at the community level between the various strategic axes of the PRSP (table 1 and annex 15). At the same time, GEF incremental activities will explicitly address the strategic orientations of Axis 1, Axis 2 and Axis 5 of the PRSP. Good governance will be promoted through increased capacity for decentralized environmental governance and training of Ministry of Environment and Water agents. Strong and sustainable economic growth will be advanced through genuine integration of natural resource management and sustainable rural livelihood strategies in local development planning and processes. More obviously, GEF incremental activities will help restore and sustain Chad's major ecosystems through all of its sub-components, in particular the co-financing of strategic micro-projects and targeted training to improve the management of protected areas.

Table 1. Links between PROADEL components and PRSP strategic orientations

PRSP	Axis 1 : Promote good governance	Axis 2 : Promote strong and sustainable economic growth	Axis 3 : Improve human capital	Axis 4 : Improve living condition of vulnerable groups	Axis 5 : Restore and sustain ecosystems
PROADEL					
Component 1 : Financial support to local development subprojects		PROADEL will cofinance collective investments including basic infrastructure (road network, water, energy)	PROADEL will cofinance collective investments to improve access to basic health and education services		Cofinancing of subprojects addressing management and improvement of natural resources by communities
Component 2 : Capacity building for communities	Communities will participate in decisions by submitting their requests and electing representative in the Decision Committees	PROADEL will support capacity building of microfinance institutions	PROADEL will support campaigns to influence behavior conducive to poverty reduction	Preparation of Local Development Plans and identification of priorities will take into account the needs of vulnerable groups	PROADEL will reinforce the communities' capacity for integrated management of natural resources
Component 3 : Support for decentralization	Support for decentralization will consist of preparation of required regulatory texts, support to the decentralization ministry, sensitization at the national, regional, and local levels, and strengthening of the capacities of the <i>communes</i>	The PRSP identifies land-tenure issues (insecure land property, conflicts between breeders and farmers) as a key constraint on rural development. Pilot activities will address these issues			

Component 4 : Management and information support	This component will establish links with the monitoring system of the PRSP		
GEF Incremental Activities	Activities will strengthen capacity for decentralized environmental governance through building the capacity of Ministry of Environment and Water agents and the provision of technical assistance to strengthen environmental management and enforcement	Activities will better integrate natural resource management and sustainable rural livelihood issues into local development planning and processes, thereby promoting sustainable economic growth	Activities will promote the restoration and protection of ecosystems of global significance, through capacity building and the co-financing of sub-projects that increase soil fertility retard desertification, preserve water quality, and promote better conservation of protected areas and habitats to threatened species

3. Sector issues to be addressed by the project and strategic choices:

Support to be provided under PROADEL would address the main issues as described in B.2, as follows:

Issue 1: Weak and inefficient provision of basic services to the rural population. The project would increase the availability of social and economic services in rural areas by (i) financing community infrastructures on a demand-driven basis and in accordance with national policies and guidelines; (ii) improving the technical and managerial skills of local staff (teachers, nurses, civil officers); and (iii) creating conditions that ensure the long-term sustainability of services by promoting capacity building. The project would encourage the establishment of private service providers and the active involvement of communities in managing local services. And the project would foster decentralization by establishing more efficient and more demand-driven services.

Issue 2: Ecosystem fragility exacerbated by demographic pressures and land-use conflicts. The project would finance (i) investments and capacity- building activities that protect and restore the natural resource base and (ii) initiatives that benefit biodiversity. The project would deal with degradation of natural resources at several levels: (i) at the local level, the project would actively formulate and implement land management plans that promote the small-scale, rational use of natural resources (largely based on the AEDE experience and pilot pastoral projects, community forestry, soil erosion management, and fertility enhancement techniques), and allow villages to generate funds from sustainable harvesting of woodfuels; (ii) at the *département* level, the project would consolidate several local proposals to finance environmental interventions on a larger scale (such as community-managed natural forests and protected areas and watershed management); and (iii) at the national level, the project would establish an environmental information management system and adopt a regulatory and fiscal framework to encourage protection and restoration of natural resources. The National Environmental Action Plan (NEAP) and The Fight against Desertification National Plan (FADN) exercises would provide the project with relevant orientation

information. The long-term horizon of PROADEL allows for inclusion of diagnostic studies and pilot projects on degradation of natural resources in the first phase and development of appropriate interventions in later phases. And the analysis of land tenure issues would receive specific attention.

Issue 3: Weak organization of rural communities and limited involvement in decisions concerning their development, including natural resource management. The project would finance socioeconomic investments identified and managed by local communities while building the managerial and planning capability of those communities and increasing transparency and accountability at the local level. While administrative decentralization would likely take a long time to complete, the project would establish mechanisms for improving the efficiency of coordination activities that would increase the participation of civil society during decentralization. The involvement of women and other underprivileged groups (youth, transhumant herders) in their community's development would receive particular attention.

Issue 4: Weak rural finance services. The project would support the Government in the completion of the regulatory framework for microfinance in Chad and provide institutional support to microfinance institutions by strengthening their capabilities.

The project's strategic choices are in line with the CDD approach and are as follows:

- Community development or agricultural development. Rural growth would remain the main engine of Chad's economy, even during the oil era. This project is part of a larger Program of Interventions for Rural Development (PIDR). The combined efforts of PROADEL and ASPOP would contribute to sustained rural growth in a framework of strengthened capacity of local and central stakeholders.
- Long-term or short-term horizons. Activities to be undertaken are ambitious and demand long-term commitment. No single-phase short-term project could deal with the issues at stake and achieve the objectives of national coverage and enhancement of the regulatory framework. A multiphased long-term program would be able to build on early results, with an experimentation phase followed by an expansion phase and then a consolidation phase.
- Decentralized or centralized approach. This project has chosen a participatory approach demanding decentralized powers and resources at the lowest level of intervention. Addressing poverty requires approaches tailored to each zone of intervention.
- Multisector or sectoral intervention. Poverty is multidimensional and demands a multisectoral approach. A demand-driven approach cannot be pursued without a multisectoral vision because rural development is the result of activities in agriculture, health, education, transport, housing, and others. But consistency with sectoral development programs and national policies is necessary.

4. Program description and performance triggers for subsequent loans:

To allow for the best adjustment of the program according to its performance, the program is designed to allow for overlap of the successive phases. Phases would be initiated independent of the termination dates of the previous phase and triggered when specific results have been accomplished. The following actions and triggers are proposed for each phase:

Program Description and Performance Triggers for Subsequent Phases

- | | |
|---------|--|
| Phase 1 | <ul style="list-style-type: none">• Will initiate the program in 16 of 47 <i>départements</i>.• Will help define the decentralization framework and plan the transfer of responsibility to decentralized authorities. |
|---------|--|

- Triggers
- 50% of targeted communities have prepared and adopted their Local Development Plans.
 - 50% of targeted communities have at least one subproject whose first tranche has been disbursed.
 - 75% of Decision Committees are in place and have met at least once.
 - Decentralized regulatory texts have been enacted and adopted by the national assembly, and 50% of the application texts projects are available.
 - Timetable for local administrative elections (*communes* and *communautés rurales*) has been defined.
 - At least 0.5% of oil revenues devoted to priority sectors are disbursed for subprojects that come within the scope of Local Development Plans



- Phase 2
- Will scale up the activities of the program and expand coverage to 32 of 47 *départements*.
 - Will continue the deconcentration implementation plan and follow up the support to fiscal decentralization and implementation of the national training and capacity building of elected local governments.

- Triggers
- 75% of targeted communities have prepared and adopted their Local Development Plans.
 - 50% of targeted communities have at least one subproject whose first tranche has been disbursed.
 - 75% of Decision Committees are in place and have met at least once.
 - Elections for the rural councils have taken place.
 - 75% of national resources budgeted for decentralized authorities are actually transferred, and 10% of these transfers are disbursed based on Local Development Plans.



- Phase 3
- Will achieve national coverage, consolidate the achievements of the previous phases, and contribute to the implementation of the policy measures needed to ensure the sustainability of the process.
 - Will continue to support the institution reforms in line ministries.

Expansion to new phases of the program would be subject to an appraisal assessing the feasibility of the new phase. The appraisal would include (i) evaluation of the results of the previous phase, assessed against trigger indicators, and (ii) preparatory studies for each new *département* to be covered, detailing social, economic, and environmental analyses.

C. Program and Project Description Summary

1. Project components (see Annex 2 for a detailed description and Annex 3 for a detailed cost breakdown):

The project would have four components: (i) financial support to local development subprojects, (ii) capacity building for communities, (iii) support for decentralization, and (iv) management and information support.

For each component the preliminary cost estimates are as follows:

Component	Indicative Costs (US\$M)	% of Total	Bank financing (US\$M)	% of Total	GEF financing (US\$M)	% GEF
Financial support to local development subprojects	16.40	30.3	10.12	44.0	2.45	15.0
Capacity building for communities	20.61	40.6	4.58	19.9	1.93	9.3
Support for decentralization	6.29	11.0	3.40	14.8	1.23	19.6
Management and Information support	8.95	18.1	4.90	21.3	0.64	7.1
Total Project Costs	52.00	100.0	23.00	100.0	6.00	
Total Financing Required	52.00	100.0	23.00	100.0	6.00	

Additional details on project components, including incremental GEF activities are provided below.

Component 1 – Financial support to local development subprojects

Under PROADEL matching grants will be provided to co-finance subprojects proposed by local communities (associations, organizations, and others) with legal status or decentralized local government entities (at the *commune* or *communauté rurale* level, once established). Its purpose is to reduce poverty by stimulating local development and improving communities' livelihood, such as:

- Small social activities such as transport (bridges), education (classrooms), health (health posts, HIV/AIDS prevention and information, personnel training), and water and sanitation (wells).
- Management of natural resources activities such as erosion control, tree nurseries, forests management, and fuelwood alternatives.
- Large-scale and more expensive collective infrastructure projects that would affect several villages or cantons, such as drilling, rural roads, and water supply systems.

Financial support would be established to co-finance community subprojects which will have a positive impact on the global environment and related integrated ecosystem management activities. Eligible activities will include environmental activities of only medium and long term economic return regarding priority sites and proposed in the Local Development Plans. In such case, a percentage of the contribution requested from the beneficiaries will be financed. This will happen mostly by financing a percentage of the contribution requested from the beneficiaries (in the form of cash, materials or wages for labor) representing between 5 and 50 percent of total subproject costs. A final “positive list” of specific eligible activities will be established according to GEF principles during project preparation; however, in all cases eligibility will be restricted to those subprojects proposed in Local Development Plans and that concern or affect priority zones. Finally, activities must be “incremental” investments having a medium or long-term economic return and manifesting barriers to their immediate implementation. Some of the subprojects likely to be eligible include, inter alia, the reforestation and rehabilitation of gallery forests to prevent dune advancement, support for community co-management of protected areas, the introduction of direct seeding and other agro-

forestry techniques that can increase soil fertility and soil organic carbon retention, and the development of more sustainable, alternative energy carriers to fuel wood and traditionally produced charcoal. Under this component, the interventions and lessons learned in the successful Household Energy Management Project would be replicated to a wider area of rural communities in the outskirts of the capital.

Component 2 – Capacity building for communities

PRAODEL will strengthen the technical and organizational capacity at the community level for participatory approaches, needs assessments, and subproject management (procurement, financial management). It would support communities in the preparation of local development plans and subprojects requests. The capacity of sub-prefectoral and departmental Decision and Approval Committees will be strengthened for them to fulfill their mandate (conflict resolution, regional management, safeguard issues, decentralization) and specific training will be provided on critical rural development issues, including HIV/AIDS awareness. Given the multi-sectoral nature of the program, these capacity-building activities may concern a wide spectrum of sectors including health, environment, education, transport, and energy. Additional trainings will be provided to benefit to communities on specific topics related to poverty reduction: access to credit, nutrition, hygiene, HIV/AIDS awareness, sustainable management of natural resources especially in woodfuel supply basins.

GEF activities under this component comprise technical assistance and capacity building support services to local communities, its decision committees, and community super-structures to integrate environmental concerns and integrated ecosystem management principles into local development planning. Specific training and organizational support will build the skills of communities in targeted areas to: (i) design and implement natural resources management strategies within an integrated ecosystem management framework; and (ii) pursue strategies and modalities to co-manage protected areas with government officials. These activities run in parallel to the first component, such that the conceptualization of subprojects (i.e. those aimed at reducing soil erosion, maintaining forest cover, and restoring woody vegetation) can more coherently address broader ecosystem challenges, such as watershed management. GEF capacity building activities will proceed in a two-tiered strategy. At one level, collaboration between key stakeholders including a super-structure of concerned communities will be built to pursue integrated ecosystem management priorities at larger spatial scales, including the development of new protected area management plans, including those for the Binder-Léré Wildlife Reserve and proposed Lake Fitri Biosphere Reserve. A systematic review of protected areas and other assessments to identify new priority intervention zones will be undertaken. On another level, support will be extended directly to local communities for capacity building and in some cases facilitation assistance to help co-manage protected areas identified in the protected areas review. These activities will incorporate indigenous knowledge and participation of community leaders. Selected communities will be supported to conduct participatory needs assessments in alignment with “gestion de terroirs” and community based natural resources management principles. In rural areas in the outskirts of N’Djamena, capacity building will emphasize the promotion of more sustainable household energy alternatives. In addition to these activities, scientific and technical capacity will be built in biosphere reserve management, and targeted support will be given to Chadian stakeholders in savannah and drylands management under a future UNEP/GEF regional initiative on Dryland Biodiversity in West African Biosphere Reserves. At an early stage of the project an “IEM Guideline Document” (being prepared with GEF PDF-B support) will also be developed. This will finalize the subprojects eligibility criteria and “positive list” under the program. The document will serve as a blueprint for how to consolidate IEM approaches in local development planning under the framework of the PIDR. Under a “train the trainers” model, it will be used for capacity-building purposes to

increase the skills and knowledge base of decentralized Ministry of Water and Environment agents and local NGO service providers.

Component 3 – Support for decentralization

PROADEL will strengthen the institutional/legal framework for decentralized rural development, leading to modest gains in the capacity of local authorities to support natural resources management (mainly focused on more sustainable agricultural cultivation). PROADEL focuses on building sound legal and regulatory frameworks to support decentralization in general, as well as targeted training for key stakeholders involved in the process, with the Ministry of Decentralization being the primary partner. These activities will also establish a fiscal decentralization framework. ASPOP would also support capacity building of technical ministries to improve the quality in preparation and implementation of rural investment programs, and to monitor implementation of mitigation measures for potential negative impacts of productive investments on natural resources. Technical and institutional capacities of research institutions would be also strengthened.

GEF incremental funding will advance the Government of Chad's decentralization agenda, by strengthening national capacity for decentralized environmental governance. Interventions under this component will target the finalization and implementation of sound regulatory frameworks and workable modalities for community involvement or joint environmental management. This may involve modifications to the legal framework and targeted assistance to communities to work with the Ministry of Environment and Water to adopt local regulations for joint management of protected areas. In addition, modifications to the institutional or legal framework for adopting taxes and/or user fees to woodfuel and charcoal sales will be pursued to increase incentives for proper management of wood resources and to support more sustainable energy alternatives to traditional biomass. Capacity building activities will thrust at improving the skills and enforcement powers of agents in the Ministry of Environment and Water, particularly those working at local and decentralized levels. Mechanisms to build this capacity shall include, inter alia, specialized training and workshops, and logistical support. Land tenure and security issues will also be addressed through assistance to communities to collaborate with Ministry of Environment and Water officials in the adoption of local regulations and workable modalities for joint management of protected areas. Support may include modifications to the legal framework that hinder direct community or joint environmental management.

Component 4 – Management and Information support

Baseline activities under the PIDR framework include the development of more robust, broad-based monitoring and management information systems for the rural sector. These systems would include additional data on the state of the environment. A general public awareness-raising campaign on challenges to sustainable rural development would also be advanced. Additional funds will be dedicated to local participation in the monitoring and evaluation of IDA-funded projects.

GEF financed activities will strengthen the environmental monitoring and evaluation capacities and complement the baseline Rural Sector Monitoring System. Building upon existing environmental and biodiversity data compiled in recent years under the NEAP and BSAP initiatives, under the Regional Environmental Information Management Program (REIMP), and in early 2004 with GEF PDF-B support, this component will: (i) expand the scope and coverage of environmental management information systems; (ii) refine the methodologies and tools used for monitoring and evaluating the progress of ecosystem improvements (including the creation of a national Geographic Information System (GIS) panel database; and (iii) delimit a set of quantitative indicators to benchmark improvements with respect to the project's global environmental objectives, (e.g., biodiversity

conservation, the retreat of desertification advances, and net carbon sequestration gains in drylands and agricultural soils). Such inventories, systems and methodologies are necessary to properly target interventions, better determine the underlying economic value of the country's natural assets, and track changes to national environmental quality in a more sustainable and scientifically rigorous manner. Stakeholder participation will be emphasized in this component; communities will play a front-line role in ecosystem monitoring. Technical assistance to local stakeholders will be provided by the Association for the Development of Information on the Environment. In addition, the environmental information system will be elaborated in conjunction with the development of the second phase of the Regional Environmental Information Management Program (REIMP), the first phase of which was supported by the GEF.

A detailed map of the departments covered by the PROADEL, and GEF incremental activities (including GTZ-financed PRODALKA areas) is provided in Annex 18.

Priority Zones of Intervention

Integrated ecosystem management activities and plans will be prioritized in three priority zones of intervention. Currently, a shortlist of five zones are under consideration; this list will be narrowed down to **three** during the course of project appraisal. The criteria to be applied for final selection of priority zones shall be:

- Full project coverage of major environmental challenges in the country and root causes of unsustainable development
- Diversification among major sub-regional ecological zones (i.e., Sudanian, Sahelian, Sahelo-Sudanian)
- Equitable geographical distribution of project activities
- Assurance that GEF activities under PROADEL supplement and do not duplicate the efforts of other projects

Northern Chad – Lake Fitri

Lake Fitri, fed by the Batha River, is the second largest body of water in Chad. A normally permanent, freshwater, Sahelian lake, fed by seasonal rainfall and runoff from the seasonal Batha river, Lake Fitri, in Chad, has a surface area of 30,000 ha during the dry season and is part of a larger biosphere reserve covering 195,000 ha. In 1987, the lake was designated a Ramsar site, and in 1990 a biosphere reserve. Unlike Lake Chad, Lake Fitri is one of the very few Sahelian water bodies that has yet to undergo a large-scale hydrological change, yet like Lake Chad, it is extremely shallow. Lake Fitri became desiccated in 1913, 1985, and again in 1991 during a period of severe drought. The Lake Fitri Biosphere Reserve contains important flora (e.g., acacia, *Echinochloa stagnina*) numerous fish species (*Claria lazera*, *Claria angilaris*, *Gymnarchus niloticus*, *Protopterus annectens*, *Tilapia galelea*, *Tilapia niloticus*) and habitats important to a very large number of seasonal migratory birds and afro-tropical waterfowl, including the rare Egyptian Goose and a plethora of waterbirds such as pelicans. The Lake environment also supports the endangered red-fronted gazelle and a small elephant population; in addition, lion, antelope, and roan have been detected in the immediate vicinity. The abundant fish found in the Lake and the fertility of the Lake's floodplains are vital to surrounding communities for their very survival. Of late, conflicts between mainly Arab transhumant pastoralists and mainly Bilala sedentary farming communities concerning control over wells and lake shore grazing have been on the rise. The most significant potential threat to the site's ecological character comes from the cumulative impact of small dykes and dams diverting seasonal runoff and river flow into the lake. If Lake Fitri is as a priority zone, then incremental GEF activities under PROADEL will complement a small pilot activity under the umbrella of the UNDP/GEF Lake Chad

Basin initiative. Synergy will be built in three fundamental aspects: (i) a financing window to implement sub-projects already conceived through previous processes and ecosystem assessments; (ii) IEM local development planning and capacity-building support to a greater number and wider range of communities beyond the immediate perimeter of the Lake; and (iii) mainstreaming at country level a major regional ecosystem management priority.

Northern Chad – Siniaka-Minia Fauna Reserve

The human savannah fauna reserve of Siniaka-Minia in the Sahelo-Sudanian zone covers and immense plain of 426,000 hectares and was established in 1961. The reserve rests atop a ground water network of the Bahr Siniaka et Droum, which drain from the north and finally enlarge to the Bahr Minia in the south of the reserve. In the reserve the very rare Derby Eland and “great” kudu species make their home, as well as rhinoceroses, elephants, hyenas, and a great variety of antelopes. The integrity of the wildlife in the reserve and its peripheral areas, and the vegetation upon which they depend is being compromised by poaching and the progressive encroachment of cotton cultivation and other subsistence crops.

Southwestern Chad – West Mayo-Kebbi

This small area in the Southwestern corner of the country bordering Cameroon envelopes Lac Léré, another major freshwater body in the Chad, as well some key protected areas, including the *Binder-Léré Game Reserve* and the *Forest Reserve of Yamba-Berté*. The sub-region in general suffers from poor integrated ecosystem management and is subject to mounting ecological pressure from the ongoing expansion of agricultural activities for subsistence and cash-crops, extensive grazing, poaching, and illegal charcoal production. This has led to soil degradation, deforestation, and the initiation of desertification. The Binder-Léré Game Reserve (Mayo Dallah department) hosts a few rare and highly-threatened species including the eland, red hartebeest, fresh-water manatees, and aquatic *pleomediusa* and *pelusios* turtles; lions, hyenas, elephants, and gazelles, among some 38 other large mammals, can also be observed. The reserve also encompasses the world heritage site of the Gauthiot falls. A number of agrarian communities in the region also abut and use the Logone River, which flows into Lake Chad. The *Yamba-Berté Forest Reserve* in the department of Lac Léré envelopes critical gallery forests, pristine woodlands, and a network of small lakes, swamps, and flood plains along the Kebbi and Kabia Rivers that serve as important buffer zones against encroaching desertification. Most of the local population in this area consumes charcoal, much of which is not rationalized and some of which is illegally harvested, contributing to deforestation.

Southeastern Chad – Mandoul Forests and Greater Manda National Park Region This priority zone encompasses the extensive Mandoul Forests which traverse in particular the departments of Mandou-Occidental and Mandou-Oriental. This zone also includes buffer zones and peripheral areas of Manda National Park, which is arguably Chad’s most important protected area. With support of the GEF and other donors, Manda has been undergoing a major effort to rehabilitate its habitats after many years of neglect and a significant depletion of its key biodiversity. The swamps and tributaries of the Chari River that encompass Manda Park and its peripheral areas provide ideal habitats for a variety of sensitive flora as well as grazing areas for livestock and wildlife. Among other species, Manda supports elephants, lions, buffalos, hippos, panthers, crocodiles, gazelles, antelopes, ducks, and pythons. The integrity of the Mandoul Forests and the Manda National Park buffer zones are threatened by progressively greater land clearing and deforestation from transhumant pastoralists and surrounding villagers. In large part, this is linked to unsustainable wood fuel and charcoal production, which is destined for sale in Sarh, Chad’s third largest city, also within this zone. In addition to these areas, a new protected area of 94,500 hectares, known as Ndam, has been proposed for this region. GEF incremental activities under PROADEL will not be implanted within the Manda Park, as it is not in the project boundary. However, some of the buffer zones and peripheral areas of the Manda Park

are in the PROADEL project boundary, and a number of communities that could threaten the integrity of the biodiversity in the park are in departments in which the project will build cooperation.

Southern Chad. Bainamar & Larmanaye Forests in Monts de Lam

The Bainamar and Larmanaye forests are situated in the Lam Mountains in the Logone-Oriental, near Goré. These and a number of other forests in this area (i.e. the Timbiri and Yambabereti forests) are classified as protected areas, due to the important plant and animal biodiversity contained within these dense, humid Central African forests. In 2003, a study was undertaken to elaborate a committee for improved forestry management in Larmanaye forest, but at this time, no specific conservation activities or management structures for the region have been implemented. A village has emerged in the Yambabereti forest, threatening the integrity of protected area. Also in this area, but lying toward Mongo and technically in the Sahelo-Sudanian zone, the flora and fauna reserve of Sianakamenia can also be found. This important habitat for flora and fauna also suffers from a lack of any formal management structure or community involvement.

Priority Zones for GEF Activities under PROADEL and Major Protected Areas with Globally-Significant Environmental Assets Therein

Region	Major environmental threats	Protected Areas within Region	Départments Covered under PROADEL (IDA + GEF)	Départments Covered under PRODALKA (GtZ/KfW/DeD)
Sahelo-Sudanian	<ul style="list-style-type: none"> • Weak protected areas management systems • Water management in gum Arabic cultivation • Soil erosion in hilly areas 	<ul style="list-style-type: none"> • Zakouma National Park • Siniaka-Minia Fauna Reserve • Aboutelfan Fauna Reserve • Doughtia hunting reserve 	<ul style="list-style-type: none"> • Dababa • Barh Signaka* • Loug-Chari • Baguirmi • Chari • Bahr Koh 	
Sudanian	<ul style="list-style-type: none"> • Soil infertility • Rich biodiversity and critical habitats not well protected • Land and forest clearing and marsh draining • Water management 	<ul style="list-style-type: none"> • Manda National Park • Bahr Salamat Fauna Reserve • Binder-Léré Fauna Reserve • Mandélie Fauna Reserve • Yamba-Béréle Forest • Ndam (proposed) 	<ul style="list-style-type: none"> • Mandou-Occidental * • Mandou- Oriental * • Barh Sara • La Nya Pende • La Pende • Tandjile Oriental • Tandjile Occidental • Lac Wey • Dodje • Ngourkossou • Monts de Lam • Mayo Dallah* • Lac Léré * • Kabbia 	<ul style="list-style-type: none"> • Mayo Dallah • Lac Léré • Kabbia
Sahelian	<ul style="list-style-type: none"> • Encroaching desertification • Oryx and addax species highly threatened • Droughts, soil erosion, deforestation, and bush fires 	<ul style="list-style-type: none"> • Lake Fitri Biosphere Reserve • Fada Archeï Fauna Reserve • Ouaddi-Achim-Rimé Fauna Reserve 	<ul style="list-style-type: none"> • Bahr El Gazal • Fitri * 	

* = Departments in GEF intervention priority zones

2. Key policy and institutional reforms supported by the project:

- Decentralization. The project would accompany and support decentralization by providing capacity building for decentralized entities and elaborating a sound regulatory framework for decentralization and a master plan for its implementation.
- Distribution of public funds, especially oil revenues, through the network of decentralized entities. In accordance with the Law on Oil Revenue Management, the Government has committed to using part of the royalties and dividends deposited into the Special Petroleum Revenue Accounts for incremental expenditures in key sectors contributing to poverty reduction (education, health and social services, rural development, infrastructure, environment, and water resources). The Bank should lobby the Government of Chad to channel part of these funds through decentralized financial mechanisms and disburse them based on Local Development Plans.

3. Benefits and target population:

Target population

The primary target population consists of communities in rural areas and urban areas except the main cities of N'Djamena, Moundou, and Sahr. Local communities are made up of people living in one or several villages, districts, hamlets, or campments sharing use of the space and natural resources around the settlements. Women, transhumant herders, and other underprivileged groups would be actively targeted to ensure that they (i) receive their share of benefits from project activities and (ii) are able to effectively participate in decisions affecting the program and the development of their community. Service providers would be contracted to support communities in participatory assessments and Local Development Plan preparation and implementation, and they would be asked to focus specifically on underprivileged groups. Decision Committees to decide on subprojects would comprise representatives of communities and include women as members. Other beneficiaries to be strengthened by the project would be decentralized authorities, nongovernmental organizations (NGOs), and service providers.

The Government of Chad, in agreement with donors, has chosen to target several *départements* for the first phase of the program. Zones and types of activities were chosen to (i) quickly cover the oil and cotton production area, which will be more and more socially sensitive; (ii) allow an efficient and successful start of PROADEL; and (iii) launch activities in sedentary and pastoral areas. PROADEL would start in the *departments* of Mandoul Occidental, Mandoul Oriental, and Bahr Sara (in the region of Mandoul) and expand to Dodge, Lac Weye, Ngourkosso, Tandjile Est, and Tandjile Ouest (in the regions of Tandjile and Logone Occidental), which are in the oil-producing area. To complete the coverage of the oil production area, PROADEL would also include La Nya Pende, La Pende, and Monts de Lam (in the region of Logone Oriental), once FACIL is no longer active. PROADEL would launch some studies and pilot activities in pastoral areas, the *départements* of Chari, Baguirmi, Loug Chari, Dababa, Bahr Koh, Barh Signaka, Fitri, and Bahr El Gazal (in the regions of Chari-Baguirmi, Kanem, and Hadjer Lamis) to refine the participatory approach prior to the following phases and to implement household energy activities in the N'Djamena woodfuel supply basin (see map in annex 16).

For Project Component 1 (financial support to local development subprojects), availability of funds would be partly preset for each *sous-préfecture or département* to strengthen priority setting by the communities.

- 60% of the Component 1 resources would be allocated on a per capita basis.
- 30% of the Component 1 resources would remain available on a first-come, first-served basis, up to FCFA 140 million (US\$200,000) per rural community or commune each year.

- 10% of the Component 1 resources would be distributed as awards to beneficiaries best meeting project expectations, based on the following criteria: good governance, good administrative and financial management, accounting for marginalized populations, and good infrastructure management.

The resource envelopes for each *sous-préfecture* or *département* would be revised each year following the criteria set out in the Public Investment Program. Dynamic communities might then receive more funds.

Expected benefits

Expected benefits of the project are:

Improved living conditions:

- (i) Improved health, food security, and education.
- (ii) Improved access to social services.
- (iii) Improved communication.

Strengthened local capacity:

- (i) Ability to plan, implement, and monitor Local Development Plans and projects.
- (ii) Transparency in managing local financial resources.
- (iii) Accountability of elected bodies and communities.

Strengthened central institutional capacity

- (i) Implementation of decentralization.
- (ii) Deconcentration of line ministries.
- (iii) Improved use of scarce budgetary resources.

Preservation of natural resources:

- (i) Reduction of soil erosion.
- (ii) Reduction of deforestation.
- (iii) Conservation of biodiversity.

4. Institutional and implementation arrangements:

The Ministry of Land Management, Urbanism, and Habitat would have institutional responsibility for the project.

Implementation period

The program would be implemented over a period of up to 12 years, and the proposed project represents its first phase. The duration of each phase would depend on the progress made in attaining the predefined triggers.

Project implementation (See annex 13)

The Government has prepared a comprehensive Project Implementation Manual, a Monitoring and Evaluation Manual, and an Administrative, Financial, and Accounting Manual. The Project Implementation Manual defines procedural arrangements for implementing the project and includes guidelines for identifying, approving, implementing, supervising, and evaluating subprojects. Adoption of the Project Implementation Manual by the Government in a manner satisfactory to IDA would be a condition of project effectiveness.

Implementation of PROADEL would be concurrent with decentralization, which was begun by the Government of Chad in 1996. The project's institutional arrangements have been designed to comply with the decentralization framework defined in laws 002/PR/2000 and 07/PR/2002, especially with regard to the *communautés rurales*. Four levels in the administrative organization of the country are involved in PROADEL's organization:

- (1) Community level: the *communautés rurales*, created by the law of June 5, 2002, and the *communes*. *Communautés rurales* consist of one or several villages or *cantons*. *Communes* are the capitals of the *régions*, *départements*, and *sous-préfectures*.
- (2) Intermediary level: PROADEL's implementation requires a decision level that is close to the communities and that is already represented by major central Government services. Since the *canton* is represented by only a single auxiliary with limited prerogatives, the *sous-préfecture* was chosen. There are 108 *sous-préfectures*. The *département* could also be the intermediary level if the population is less than 5,000 or if MA, ME, MEE, MH, MED, or MTP are not represented at the *sous-préfecture* level.
- (3) Middle intermediary level: the *département*.
- (4) Central level.

Individuals in *communautés rurales* or *communes* would form community-based organizations, where all local shareholders would meet. with a secretariat to organize meetings and write reports. The meetings would allow communities to assess their needs and prepare Local Development Plans in a participatory manner. Animators would be contracted by the project to assist in the process.

Subprefectoral Decision and Approval Committees would also be established with (i) representatives from deconcentrated line ministries concerned with submitted subprojects, including ministries in charge of rural development, education, health, and local infrastructure; (ii) an NGO representative chosen by his or her peers; (iii) a representative of local rural organizations; and (iv) three representatives of community-based organizations from each *canton*. The committees would be responsible for (i) approving Local Development Plans and subproject proposals submitted by community-based organizations, (ii) consolidating Local Development Plans into a Subprefectoral Development Plan, and (iii) monitoring the implementation of those subprojects. Any deconcentrated line ministry that is not a member of the Subprefectoral Decision and Approval Committee but is concerned with a subproject request would be involved to share technical expertise and ensure compliance with national standards and policies. Concerned Deconcentrated line ministries' technical clearance would be required prior to approval of development plans and subprojects.

A Departmental Decision and Approval Committee would be established to (i) approve Local Development Plans submitted by community-based organizations from *communes* or from the new decentralized authorities and (ii) monitor and supervise implementation of Local Development Plans. The committee would include (i) elected representatives of the *communes* management committees; (ii) representatives from deconcentrated line ministries concerned with subproject requests, including ministries in charge of rural development, education, health, and local infrastructure; (iii) an NGO representative chosen by his or her peers; (iv) a representative of local rural organizations; and (v) three representatives of community-based organizations from each *canton*, including different local groups (women's associations, youth associations, and others).

In addition to technical and operational background information on PROADEL, the minutes of the Decision Committees (including approved Local Development Plans) would be sent to the ASPOP's Departmental Decision and Approval Committees to strengthen synergies between the two projects.

At the central level there would be a Steering Committee for all the projects of the PIDR, including PROADEL and ASPOP. It would (i) examine and approve the balance sheet of the previous period's activities, (ii) analyze and adopt the action programs and budgets, and (iii) take

corrective measures in case of anomalies. The Steering Committee, to be defined by legal texts (*arrêté* 027/PM/2003), would consist of representatives of ministries and institutions associated with the program (ministries, donors, NGOs) and representatives of producer organizations and community-based organizations. Donors or experts could attend as observers, if needed.

Program Management and Monitoring

Day-to-day management of project activities would be assigned to a Project Management Unit (PMU) in N'Djamena, with members recruited by the Ministry of Land Management, Urbanism, and Habitat. It would consist of a small management team staffed with:

- A coordinator proficient in managing development projects.
- A technical team (a capacity-building specialist, a decentralization specialist, a monitoring and evaluation specialist, an environmental and social specialist, and a communication specialist).
- An operational team (an administrative and financial specialist, an accountant, and a procurement specialist).

The PMU would be responsible for: (i) coordinating overall implementation of the project, (ii) managing project activities implemented at the central level, (iii) ensuring availability of funds, (iv) maintaining the books and accounts of project activities and producing financial reports, (v) monitoring and evaluating implementation and impacts of the program, (vi) reporting results to various stakeholders (administration, donors, civil society, projects, Decision Committees), and (vii) providing technical assistance to Local Project Management Units (LPMUs). Most activities would be subcontracted by the PMU in accordance with the PROADEL procurement arrangements. Household energy activities would be single source contracted to AEDE because it is the only agency that can successfully and efficiently implement the activities in a timely manner. Support activities to the communities for local planning, and local work supervision (Subcomponent 2.1) financed by the co-stakeholder, French Development Agency, would be executed by an operator recruited by the Ministry of Land Management, Urbanism and Habitat, following an international invitation to tender.

Three LPMUs would be responsible for coordinating project activities in their territory. They would be established in Koumra, Moundou, and N'Djamena. Each LPMU would comprise an administrator, a monitoring and evaluation specialist, a capacity-building and animation specialist, and an accountant. Rather than being directive, they would concentrate on support activities to local communities in consultation with local stakeholders. The LPMUs would be responsible for (i) carrying out capacity-building activities at the local level, (ii) managing the funds to finance the subprojects, (iii) monitoring and evaluating project activities at the local level, and (iv) reporting to local stakeholders and the central PMU.

The PMU and LPMUs would work closely with ASPOP's National Project Coordination Management Unit and Inter-Regional Project Coordination Units to coordinate preparation and implementation of their annual work programs, organize joint meetings and field missions, and harmonize their training and communication plans.

The detailed configuration of the PMU, the LPMUs, the profile of the staff, and their job descriptions are described in the Project Implementation Manual.

Financial Mechanism (see annex 12):

Three special accounts would be opened for the implementation of the Program , and would be managed by the PMU:

- Special Account A (SA-A) to cofinance the subprojects.

- Special Account B (SA-B) for such activities as capacity building and information education and communication, to be financed through the IDA grant.
 - Special Account C (SA-C) for activities to support decentralization, monitoring and evaluation, and project management costs (PMU/LPMU expenses).
- The financial management arrangements, including reporting, are detailed in the Project Implementation Manual and the Administrative and Financial Management Manual.

Financial Management Arrangements:

The first phase of the program would be carried out over four years. Procurement, disbursement, and decentralized financial management practices would benefit from several new and simplified methods recently developed and standardized in the Bank. These methods are described in “Guidelines for Simplified Procurement and Disbursement for Community-Based Investments” (February 1998), “Guidelines for Africa Region on Financial Management for Community Action Programs” (October 2000), “Guidelines for Task Teams on Procurement Procedures Used in Social Funds” (February 2001), and “Fiduciary Management for Community-Driven Development Projects” (March 2002, draft).

1. Capacity Assessment of the PMU and Financial Monitoring Reports

A PMU with a competent and experienced staff, including a coordinator and an administrative and financial management specialist, would be recruited through a competitive process acceptable to IDA. Adequate provision would be made to train the accounting and financial staff. The PMU would include a procurement specialist and an experienced accountant. At the field level, there would be three LPMUs, comprising an administrator, a monitoring and evaluation specialist, a procurement specialist, and an accountant.

The project would establish a financial management system, acceptable to IDA, that would provide the borrower and IDA with accurate and timely information on resources and expenditures. The financial management system would include budgetary accounting and financial reporting for internal control device and auditing elements. A financial management firm would be selected to design and establish the computerized financial management systems of the PMU and the LPMUs. The PMU would be responsible for project administrative and technical coordination and financial management at the central level and the LPMUs at the regional level. The configuration of the PMU and the LPMUs, the profile of the staff, and their job descriptions are described in the Project Implementation Manual.

2. Financial Management

Accounting and Financial Reporting. The PMU and the LPMUs would maintain the books and accounts of the project activities and ensure that the annual financial statements are produced in a timely manner. The PMU would be responsible for consolidating project accounts, including those of the LPMUs. A financial management firm would be selected to design and install a computerized accounting and financial management system, based on internationally generally acceptable accounting principles agreed to by the Bank. The firm would also prepare guidelines for using the software, in accordance with procedures in the manual of budgetary financial and accounting approved by IDA. The firm would train the accounting and financial management staff on the operation of the computerized accounting system, prepare a financial management training program with an implementation timetable, and provide the project with assistance. The selection of the accounting software would ensure that the system is supported by a reliable organization.

The PMU and the LPMUs would maintain their accounts in accordance with international accounting standards, keeping all documentation related to project expenditures and following

sound accounting practices for all financial records. These accounts would be consolidated by the PMU at the central level, with records to be made available to Bank missions and independent auditors. The accounts of the project would be audited annually.

Financial Monitoring Reports. The PMU’s administrative and financial management specialist would be responsible for preparing the Financial Monitoring Reports, according to procedures laid out in the Project Implementation Manual. The coordinator of the PMU would be responsible for ensuring that the reports are provided to stakeholders and IDA on a timely basis each quarter. Financial Management Reports would show (i) whether funds disbursed to projects are used for the intended purpose; (ii) whether project implementation is on track; and (iii) whether costs remained within budget. Financial information would be explicitly linked with the project’s progress and procurement. The annual financial statements of the project would be prepared in accordance with generally accepted accounting principles and would include (i) discussion of project progress, (ii) sources and uses of funds, (iii) uses of funds by expenditure type, (iv) an output monitoring report, and (v) a procurement report. The audited financial statements would be submitted to IDA no more than six months after the end of the fiscal year. The computerized accounting system would be customized to generate the Financial Monitoring Reports as indicated in “Financial Monitoring Reports for World Bank–Financed Projects: Guidelines for Borrowers:” with a statement showing cash receipts by source, expenditures by main classification, beginning and ending cash balances of the project, and supporting schedules comparing actual and planned expenditures. Adequate financial management arrangements, including the ability to produce a timely Financial Monitoring Report, would be in place by credit effectiveness.

Auditing. Project records and accounts would be audited in accordance with international audit standards by an experienced and internationally recognized audit firm acceptable to IDA. The audit reports would be submitted to IDA no more than six months after the end of the Government’s fiscal year. In addition to a standard short-form report with an opinion on the annual financial statements, the auditors would be required to: (i) review all statements of expenditure and the internal control procedures governing their preparation for the period under audit and express a separate opinion on them; (ii) review the management and use of the special account and the project account and express a separate opinion on each; and (iii) review the internal control system of the project—to identify its major weaknesses and shortcomings—and propose practical recommendations for improvement. The audit firm would review the performance of randomly selected beneficiaries and provide an opinion on the effectiveness and efficiency of the lending and distribution procedures of the matching grants (Component 1). The results of this review would be documented in a Management Letter submitted along with the audit report.

The auditors would review and audit the use of Project Preparation Facility and Policy and Human Resources Development Fund grant funds covering the period prior to effectiveness. Auditors would also perform interim audits (nine months into the fiscal year) to review the internal control system, including management performance, and issue reports no more than one month from the end of their work. The findings and recommendations of the interim reports would be addressed by management without delay (no more than six months from the end of the fiscal year) before the final audit. Contracting of auditors on a renewable multiyear contract, acceptable to IDA, and certification by the financial auditors that the project accounting system is operational would be conditions of credit effectiveness.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

The following alternative projects have been considered and rejected:

Alternative without an Adaptable Program Lending (APL). In the absence of the APL instrument, the Government of Chad and the Bank would have been limited to two options: (i) a general rural investment fund covering the whole country or a large number of areas or (ii) a project (or set of projects) supporting a limited area and expanding to other areas through new projects. The number of thematic and regional projects sponsored by other partners led to an instrument that provides flexibility and a long-term perspective to complement existing and planned projects in a comprehensive development framework. The flexibility of the APL would allow the Government of Chad to reduce the risk of failure associated with a large program and to progressively build a sound national program based on lessons from the first phase and complementary projects.

A second phase of the Agricultural and Livestock Services Project (PSAP). PSAP, the Bank's major intervention in Chad's rural sector in recent years, was closed in fiscal 2003. The program was directed toward strengthening the national extension service, integrating it with the research sector, and launching pilot activities to offer more participatory and demand-driven technical assistance services to rural producers. Lessons from these pilot activities defined much of PROADEL's approach during preparation and appraisal. Although some of the PSAP activities could be relevant to the proposed project, they would be addressed by another project (ASPOP) which, in the framework of the PIDR, would concern agricultural services and producer organizations and would accompany implementation of this project.

Classical Integrated Rural Development Programs (IRDPs). IRDPs have generally failed to provide sustainable solutions to rural development. Based on a multisectoral approach, they lacked formal integration with national institutions, failed to provide for adequate participation by local stakeholders in implementation of development activities, and involved too much technical assistance. The proposed project, which would promote a multisectoral approach with significant involvement of local stakeholders at each step and sound integration with the national administrative framework and existing regional development programs, is part of a comprehensive approach to rural development, designed and implemented in collaboration with major donors and partners in Chad.

Top-down or centralized programs. The Government of Chad has started decentralization, vowing to disengage from the management of development activities and to increase the active participation of rural residents in the planning and the implementation of development activities. Chad's communication mechanisms and transport network do not allow for efficient coordination of activities with the central government. As in other countries, projects managed at the central level have been ineffective and failed to adequately respond to local needs. A program focusing responsibility at the central level would contradict lessons learned and go against the new political direction of the country.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Agriculture	PSAP Services Agricoles et Pastoraux Cr 26850, closed	S	S
Education	Basic Education Cr 25010	S	S
Health	Health and safe mother Cr 26260, 26261, active	S	S
Health	Second Population and AIDS, Cr 35480, active	S	S
Health	Health Sector Support Project, Cr 33420, active	S	S
Infrastructures	Public works, Cr 26140, Closed	U	U
Civil works, institutional strengthening	Transport sector II, 25200, 25201, closed	S	S
Civil works, institutional strengthening	National Transport Program Support Project, Cr 34260, active	S	S
Energy	Petroleum sector management capacity building, Cr 33730, active	S	S
Energy	Household Energy Project, Cr 38020, closed	S	S
Energy	Management of the Oil Economy Project, cr 33160, active	U	U
Energy	Petroleum development and Pipeline project, cr 45580, active	S	S
Other development agencies			
African Development Bank	education, institutional capacity building, rural hydraulic		
Agence Française de Développement Coopération Française	rural hydraulic rural development		
European Commission	community development, water supply, infrastructure, health, education		
German Technical Cooperation	natural resource management, community development		
United Nations	natural resource management		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

GEF co-financing under the PROADEL mechanism will create synergies with other ongoing GEF-supported and related environmental activities in Chad and the West/Central Africa region, thereby bolstering the global environmental objectives achieved. Among these synergistic projects include:

- **Reversal of Land and Water Degradation Trends in the Lake Chad Basin Ecosystem** (GEF / UNDP and IBRD). The riparian countries of the LCB are unable to orchestrate water management and environmental activities to address the aggregate impact of these demands on the LCB. This regional operation (USD 18.9 Million) expected to run from 2004-08 is supporting the countries of the Lake Chad Basin to develop a broad-based constituency and regional mechanisms to ensure that the Basin member countries coordinate their use of Lake Chad resources. Specific project objectives aim at: (i) building awareness of how national policies impact on regional resources, and capacity among riparians and stakeholders; (ii) augmenting the existing constituency through the design of a SAP; (iii) facilitating donor coordination; (iv) collaborating with ongoing work supported by other donors; and (v) drawing on lessons learned on regional water management by coordinating with other GEF projects. The project will support pilot activities in Lake Fitri, the main goals of which are to strengthen the management plan, review and commission further environmental and hydrological studies, and build processes for conflict resolution among stakeholders in the catchments area, including possible identification of micro-projects that could have a beneficial economic and environmental impact. The total budget for this activity is US \$500,000. If Lake Fitri is chosen as a priority zone, then incremental GEF activities under PROADEL will complement the GEF LCB pilot activities in the area in three important ways: (i) by providing a financing mechanism to implement eligible sub-projects that have been conceived as a result of the earlier processes and detailed spatial ecosystem diagnostics; (ii) by supporting communities beyond the immediate perimeter of the Lake (i.e. encompassing the entire Fitri department) with local development planning and capacity-building support for IEM; and (iii) mainstreaming at the country level through various activities one of the priorities of the regional Lake Chad Basin initiative.
- **Participatory Conservation in the Manda National Park, Moyen Chari Region in Southeastern Chad** (GEF / UNDP). The Moyen Chari region in Southeastern Chad constitutes one of the few remaining undisturbed ecological zones of Sudanese savanna. This project will strengthen the management plan for the Manda National Park, the Aouk Reserve, and the Nyala reserve and promote measures to rationalize natural resources use among the communities within the Park. GEF incremental activities under PROADEL will not get involved the Manda Park itself, as it is not in the PROADEL project boundary. However, some of the buffer zones and peripheral areas of the Manda Park are in the departments in which the PROADEL will build cooperation. Regular meetings will take place and the team in charge of project's implementation in the Manda National Park will be invited to participate in PIDR planning meetings in order to be able to share experiences and coordinate complementary activities.
- **Building Scientific and Technical Capacity for Effective Management and Sustainable Use of Dryland Biodiversity in West African Biosphere Reserves** (GEF / UNEP). The purpose of this regional project still under preparation (Benin, Burkina Faso, Cote d'Ivoire, Mali, Niger) is to conserve and sustainably use biodiversity in six Biosphere Reserves in West Africa that are predominantly composed of savannah ecosystems. In order to achieve this goal, project implementation will emphasize both strengthening stakeholder capacity and integration of stakeholders in biosphere reserve management. Technical exchanges with this operation will take place during the PIDR / GEF alternative.

- **Institutional Strengthening and Resource Mobilization for Mainstreaming Integrated Land and Water Management Approaches into Development Programs in Africa** (GEF / IBRD). Technical exchanges between the PIDR / GEF alternative and this project will be pursued. The project's objectives are to (i) develop a credible M&E system to track performance and impacts in the 5 project intervention areas (in Madagascar, Niger and Ethiopia); (ii) compile and disseminate Best Management Practices (including policies) in community-based integrated land and water management at the 5 sites; (iii) formulate guidelines to incrementally manage basin/sub-basin issues in the selected sites; (iv) compile and synthesize natural resource management data and develop diagnostic principles of basin/sub-basin management in the selected sites; (v) develop mechanisms for effective stakeholder participation in integrated land and water management in the targeted areas; (vi) training and awareness building (capacity building) at basin/watershed, country, and community levels in the targeted areas; (vii) develop mechanisms for communication, partnerships and operational networking within and between the selected sites; (viii) resource mobilization from donors, governments and private sector for further program implementation (expansion phase) for the 5 sites; and (ix) catalyze "start-up" institutional strengthening and capacity building activities to support community-driven decentralized and programmatic land and water management in the intervention areas.
- *Household Energy Project (IDA)*. The Household Energy Project (USD 6.0 Millions) which closed at the end of 2003, had four components: (i) establishing village-based natural resources management--this component builds the capacity to design simple long-term village land-use and wood exploitation plans for villages in the N'Djamena wood fuel catchment area by funding the technical assistance for nongovernmental organizations, forestry agents, and villagers to develop a master plan and thereafter manage and control fuelwood use; (ii) building the capacity of the Agency for Household Energy and Environment to monitor and control wood product flow through charging collecting user fees/taxes; (iii) improving the efficiency of household fuel use by commercializing efficient cooking stoves (firewood, charcoal); and promoting the use of low-cost kerosene and liquid petroleum gas (LPG) stoves with publicity and NGO-sponsored promotional activities as well as testing, product development, and monitoring of stove performance; and (iv) capacity building and training as a part of project management. The Agency for Household Energy and Environment will participate in the GEF project preparation and instruction, making it possible to scale-up the results acquired in the N'Djamena area to the national territory.
- *Rural Policy Design, Planning and Monitoring Support Project (Projet d'appui à l'élaboration, à la programmation et au suivi des politiques rurales au Chad – PAEPS)*. PAEPS includes an environmental component that will support the implementation of the Action Plan to Combat Desertification. This will be done by integrating the concerns of the plan, currently embodied by Local Action Plans, into the Local Development Plans that will be common to all community based operations in Chad.

3. Lessons learned and reflected in the project design: *Lessons from the Bank's experience in Chad*

Through implementation of community-based decentralized development funds (FOSAP, PSAP, FACIL), the Bank has learned that:

- Demand for community-driven projects is extremely high.
- If local groups are adequately trained and monitored, they are capable of managing the entire subproject cycle, from needs assessment through payment of service providers.
- Disbursement efficiency is paramount in acquiring and maintaining local interest and dynamics.
- The participatory approach to rural, social, and socioeconomic infrastructure development is often successful and ensures the sustainability of rural investments.

The Household Energy Project (CR 30820 CD, to be closed on June 30, 2004) aimed to create local management structures at the village level to manage wood resources. Some 100 villages now manage their resources and generate sustainable income from a woodfuel tax and the sale of woodfuels. With considerable effort it is possible to develop adequate management capacity at the village level. It is necessary to involve all possible stakeholders in the process, even those not directly involved.

The design of the GEF alternative follows the experiences acquired in Chad but also in other countries of the Western / Central African region. These experiences include:

- *PGRN - Natural Resources Management Project in Niger (1996–2002 / World Bank/ USD 26 Millions* demonstrated a solid record of success and proved that communities have substantial capacity for local development in the area of natural resources management. It was given “satisfactory” ratings across-the-board upon completion, and the sustainability of its interventions was rated as “likely,” particularly as a large share of communities involved in the project indicated their intention to self-finance subprojects identified under the program. This is an important precedent for the Chad project as the socio-economic and environmental contexts are quite similar, particularly in the rural sphere: fragile ecosystems, weak local communities, inefficient provision of basic services, and slowly emerging decentralization (laws enacted but no local elections). The primary objective of the Project was to slow down, stop and ultimately reverse the process of land and natural resource degradation in order to secure sustainable agricultural production and growth, alleviate poverty and improve the living conditions of Niger's rural communities. In addition, the project had two specific objectives: (i) to assist selected rural communities in different agro-ecological zones in designing and implementing management plans for their lands and provide them with the necessary know-how, information, technical and financial resources and the proper institutional and legal framework to successfully carry out such an endeavor; and (ii) to assist the government in building up a national capacity to promote, assist and coordinate the diverse natural resource management initiatives underway in Niger in the framework of the National Natural Resources Management Program (NNRMP), and help prepare NRM policies and strategies, based on lessons learned from field experience. Community Action Program procedures were introduced and implemented after the midterm review of the Natural Resources Management Project. Procedures were successfully implemented by all 125 communities in the project, even with the handicap of a sparse network of bank agencies (as in Chad). Within three months communities were able to contract operators to drill village wells, a process that was

still incomplete after 18 months before community-based procurement procedures were introduced learned include: (i) the necessity for a participatory, bottom-up IEM, (ii) the importance of keeping disbursement mechanisms as simple as possible, (iii) the impossibility to overview capacity building of decentralized environmental services. In Niger some 80 villages have created wood resource management plans under the World Bank Energy II project (closed in 1992) and continued to manage their wood resources and produce woodfuel in a sustainable manner.

- *PCGRN – Programme de Conservation et de Gestion des Ressources Naturelles*: a community based approach to integrated ecosystem management has been successfully piloted in the German-financed PCGRN project in the Mayo-Kebbi (Sahelo-Sudanian zone), with respect to the management of a protected area, a classified forest, and a river system. The experience from the PCGRN shows also that agricultural intensification on the farm level has to go along with improved management of common resources. Another experience is that the deconcentrated governmental services need to be well prepared for the transfer of responsibilities to the communities and their new role and functions. Their implication and motivation in terms of work conditions are important factors. A pre-condition for a new and improved relation with the local communities will be the continuity of the officers of the environmental services on their positions.
- *Agriculture and Livestock Service Project (PSAP – Programme des Services Agricoles et Pastoraux)*. The Agricultural and Livestock Services Project (1996-2002 / World Bank / USD 25 Millions) aimed at increasing agricultural productivity in an environmentally sustainable manner, at improving producers' incomes, and at rationalizing the use of public resources in support of rural services. The specific objectives of the project were to: (i) reshape extension into an effective service addressing farmer's needs for improved crop and livestock production as well as for natural resources management; (ii) strengthen linkages between extension and research focusing on participatory and adaptive research; and (iii) strengthen and build up producer's organizations. This program showed the limits of a top-down approach aiming at changing NRM habits of local communities. The program developed community based pilots in its last years of implementation and the first results are encouraging. Generally speaking, it seems that community driven development is an approach wanted by the Chadians, from the top to the village.
- *Elaboration of environmental strategies in Chad*. The processes followed to elaborate these strategies (BSAP, NEAP, Rural Development) were always very participatory, involving representatives from all the fields of activities in Chad: beneficiaries, administration, NGOs, research institutions, producers organizations, private companies, etc... This approach proved to be very efficient and local mobilization was always extremely positive. The methodologies followed to make local populations express their needs in a structured manner, with a long term vision, will be integrated in the design of the project, specifically in the process of elaboration of LDP.
- *Technical considerations*. The design of the proposed GEF alternative, based on strengthening local management capacities, evolved from the following considerations resulted from experience in Chad: (i) the GOC cannot protect or manage biodiversity in general, and protected areas in particular, without the

endorsement and participation of local communities, (ii) communities will not accept the additional costs (in time or money) imposed by sound natural resources management including conservation of biodiversity and ecosystem functions if they do not understand the benefits, (iii) communities need control over their land in order to assume the responsibilities of planning and management of their resources (the new decentralization law provides for the management of lands by rural communities) and (iv) the GOC role in biological resource management must take account of the rights and responsibilities of local communities as well as the relevance of environmental features such as watersheds and transitional vegetation zones.

Lessons from the Bank's experience in other countries

Social funds_ Initiated in 1987, social funds are currently active in more than 50 countries, financing small-scale community interventions that range from infrastructure and social services to training and micro enterprise development. Originally conceived as emergency measures, social funds have become part of many governments' long-term poverty alleviation strategies. With more than 10 years of experience, considerable analysis is now available on what has and has not worked in social funds. Lessons include the importance of administrative autonomy, close coordination with line ministries, integration into sector-based policies and programs, flexible and simple procurement and disbursement requirements, simple but rigorous administrative procedures, and high-level political support.

Community Action Program in the Borgou *région* of Benin. One of the first community-driven development projects in central Africa (1998–2002), the Community Action Program was successful and offered the following lessons:

- Communities must be organized through a special participatory process (village-level participatory approach) to acknowledge and address the development needs of all segments of the community—particularly marginalized groups (herders), the underprivileged, women, and the young—and prioritize their needs at the community level through consensus.
- The training process can be contracted to any operator with the required expertise (consultant firms, government services, NGOs).
- Communities give more weight to service delivery speed and accountability of operators than to the level of contribution (financial or in kind) they have to provide. Bureaucracy must therefore be limited, and intermediaries between communities and their institutional partners (project management, financial institutions, government, and services providers) must be avoided.
- Direct communication between communities and projects is essential. Staff should be recruited locally, provided they have the necessary expertise, or be fluent in at least one local language. Project management must be nimble and close to the beneficiaries (geographically and culturally).
- Operational inter-institutional links must be spelled out clearly through framework contracts from the beginning of implementation to avoid conflicts and delays (with the Government of Chad's local services for review and technical support, with financial institutions for funds management, with other partners for technical support and training)

- Even when the literacy rate is low, communities are able to carry out procurement efficiently and transparently, often more efficiently than formal institutions (government, NGOs), provided that the necessary steps have been taken to ensure ownership and understanding of the processes and that supporting institutions leave the actual leadership of operations to the community.

4. Indications of borrower and recipient commitment and ownership:

- The Government of Chad has signed a Rural Development Policy Letter, common to ASPOP too, expressing its commitment to some sector-based measures, particularly the allocation oil revenues to rural development, and to the financing of community subprojects identified by the participative processes planned in the framework of Sectoral Consultation for Rural Development projects. The Government has also pledged to devote a percentage of future oil revenue resources to natural resources management to ensure long-term productivity growth.
- The Government of Chad intends to integrate the strategy presented to donors at the April 1998 roundtable and subsequent sectoral meetings (health, rural development, education, and transportation) into a comprehensive poverty reduction strategy that would guide the government's action and coordinate donor assistance. A final PRSP, prepared in close consultation with civil society and external partners, was sent out in March 2003. It is currently being reviewed before being presented to the Board.
- The Government of Chad is engaged in decentralization, as mandated by the 1996 Constitution. Additional resources generated by oil revenue will be earmarked for poverty reduction and will increasingly be shared with decentralized entities. At the same time, the execution of public expenditures will be increasingly concerned with the private sector and nongovernmental entities. This institutional setting offers an opportunity to define rural development activities of national impact and local relevance. The new decentralization laws ascribe rural communities a major role in the management of natural resources. The implementation strategy for the National Environmental Action Plan (NEAP) further reflects this commitment. The Government seeks to achieve NEAP objectives and implement NEAP interventions largely through decentralized development plans and projects that will be conceived under the broader framework of the Government's Rural Development Strategy and associated Rural Development Support Plan (PIDR). In this way, it is believed that resources will be allocated in a manner that aligns the country's national environmental objectives and global environmental aspirations with its local development priorities. Plans formulated under NEAP and the PIDR that enhance productive activities and simultaneously promote biodiversity conservation, soil fertility and carbon storage, and biomass growth and carbon sequestration will be given priority consideration by the Government.
- The Government of Chad intends to establish a monitoring and evaluation system for the rural sector at central and decentralized levels, in line with the proposed approach. The system would be supervised by the Permanent Committee for the Follow-up to the Geneva IV Conference (*Cellule Permanente de Suivi de Geneve IV*). The Permanent Committee was established and staffed during the summer of 2000 and has contributed to mission identification. The management information system component of the proposed project would provide adequate support to and links with this system and other similar interventions for the dissemination and management of information concerning the sector.

- The Government of Chad adopted a law for managing oil revenues and a management plan for oil revenues to ensure that oil revenues are used to finance priority sectors for poverty reduction: rural development, health, education, and transportation. While rural development should benefit substantially from this provision, establishment of the decentralized financial mechanism sought by the present program should constitute an important vehicle for channeling these resources to the *régions*.
- Recognizing that its economy is highly dependent on natural resources, the Government of Chad has adopted a number of environmental policies and international commitments to address ecological threats to its security and to promote more integrated approaches to ecosystem management. Chad has ratified the UN Framework Convention on Climate Change (1994), the Convention on Biological Diversity (1994), and the Convention to Combat Desertification (1997). Building on its core National Environmental Protection Law 13/PR/94, the Government of Chad has also adopted a National Biodiversity Strategy and Action Plan (BSAP) as well as a National Environmental Action Plan (NEAP) in the last few years. The BSAP rests on four strategic pillars and promotes a community-based biodiversity management framework. The NEAP will ensure that environmental objectives are integrated into all economic development planning. Chad is also a signatory to the Yaoundé Declaration on Tropical Forests. Finally, more specific legislation has been introduced to regulate hunting, fishing, and timber and non-timber forest product extraction.
- The Government of Chad has taken measures to protect certain areas through the creation of national parks (Manda and Zakouma), integral nature reserves (Fitri), wildlife reserves (Abou Telfane, Bahr Salamat, Binder-Léré, Fada Archei, Mandelia, Ouadi Rimé-Ouadi Achim, and Siniaka-Minia), and classified forests, as well as through the legislation regulating hunting, extraction of forest products, and fishing. The proportion of Chad's territory under formal protection thus approaches international norms since 113,890 km², representing 8.8 % of the total territory, are under formal protection.

5. Value added of Bank and GEF support in this project:

Thanks to its activities in policy dialogue and its links with the International Monetary Fund, the Bank plays an important role in donor coordination in Chad, having already established a network with major donors that led to an agreement in rural development strategy. Collaboration with other donors in Chad resulted in two multidonor missions (in April 2000 and February 2001) to identify a common approach to rural development under the PIDR. The AFD would co-finance the project. Both AFD and Bank financing plans were jointly appraised in December 2002. The AFD would finance part of the second component and more specifically all the support to communities for participatory assessments, local planning, and subproject implementation and management.

In 2003, the Government of Chad approved its Poverty Reduction Strategy Paper (PRSP). This long-term strategy clearly articulates three fundamental challenges to realizing the country's development vision and its corresponding PRSP targets: (i) environmental security threats and weak national capacity to protect increasingly fragile ecosystems; (ii) the need to better consolidate ongoing decentralization efforts; and (iii) more effective integration of sustainable development considerations into economic development policies. Bearing these in mind, the Government of Chad has recognized that these challenges are more likely to be overcome if its citizens and local communities are empowered to take greater ownership in the monitoring,

management, and conservation of natural and ecological resources. The Government therefore strongly supports policies and investments that can strengthen conservation and environmental protection, advance its decentralization agenda, and effectively integrate sustainable development and natural resource management principles into local, national, and regional planning.

This project squarely supports the Chad Country Assistance Strategy and Poverty Reduction Strategic Plan, which focuses strongly on reducing poverty through more sustainable natural resource management. Indeed, GEF activities have been conscientiously designed to complement and support the Government's Rural Development Support Plan (PIDR), which is the cornerstone of its Rural Strategy and PRSP Implementation Plan. More specifically, as a blended activity, GEF activities closely parallel and complement the components of the Local Development Program Support Project (PROADEL) as well as some associated aspects of the Support to Agricultural Producers Organizations Project (ASPOP), which are both part of the PIDR, and which are being co-financed by IDA, AFD, and the GTZ/KFW, among others. In this way, the integration of holistic ecosystem management approaches and methodologies vetted by the GEF into community-based planning will improve the design of individual PROADEL components, while serving as an umbrella framework under which a range of interventions and collaborations can be coordinated. This overarching structure, particularly in focusing on local and decentralized implementation, will also facilitate a systematic implementation of Chad's National Environmental Action Plan and create synergies with other key national strategies relating to biodiversity conservation and integrated ecosystem management. Through activities geared towards stabilizing and increasing production capacity of agricultural areas, the project will also strengthen and reinforce the impact of the baseline poverty-reduction and vulnerability-reducing activities and plans embraced by the Government.

Successful implementation of the project will bolster GEF's overarching priorities as outlined in the GEF Council's Strategic Business Plan. The global operational strategy of the project is aligned to support the aims and targets of the GEF's OP Objective #12. Specifically, activities will contribute to OP#12 Strategic Priorities for increased institutional capacity to implement integrated ecosystem management, and investments based on stakeholder participation to address both domestic and global environmental benefits. In promoting (and introducing, in many cases) *holistic and cross-sectoral approaches* to environmental management, the project will also contribute to OP#12 objectives through the provision of investments for integrated ecosystem management in a manner consistent with stakeholder priorities through the application of a community driven methodology.

Interventions will address *multiple GEF focal areas*. The primary impacts will address the focal area of biodiversity conservation and sustainable land management. Additional global environmental benefits may accrue from interventions that have a positive impact on climate change and trans-boundary water management. GEF Co-financing of the IDA supported activities will generate numerous synergies. PROADEL, and by extension the PIDR, will benefit from better targeted IEM capacity-building tools and activities, and additional funding to manage longer-term local, national and global environmental issues that contribute to the perpetuation of poverty. Incremental activities funded by GEF will benefit from a national and cross-sectoral framework, as well as decentralized management structures and logistics. Since IDA activities will contribute to supporting the basic needs of communities, the likelihood of success for GEF activities will be higher, as they will be in a better position to address longer-term issues related to IEM in local development planning.

The GEF is uniquely positioned to support these objectives and it is unlikely that these goals would be achieved in the absence of GEF support. Without the GEF alternative, it is unlikely that biodiversity preservation will be given the financial means it needs to be efficient. It is also improbable that a purely demand-driven rural development project could effectively address Chad's multiple environmental challenges, nor, given Chad's high level of rural poverty, that communities would prioritize medium and long-term investments in sustainable land and natural resource management without incremental GEF funding. The provision of basic services and food security are so important in Chad that, even if there is a shared agreement that biodiversity is worthy at the global scale, only scattered attention will be given to this critical issue. Without GEF funds, integrated ecosystem management is not likely to be emphasized in the elaboration of local development plans, and some areas of global importance could be left aside, which could lead to the irreversible degradation of key habitats over time. The GEF alternative will focus on the conservation of key ecosystems likely to maximize environmental benefits and on the improvement of plans for the integrated management of renewable natural resources within those rural communities. At the same time, it is unlikely that without the funds and structure lent through an integrated GEF operation, sufficient capacity would be built to monitor ecological processes at ever larger geographical scales, or that any micro-investments supported by other donors would be able to generate in the aggregate the same degree of broad, multiple benefits to diverse stakeholders. In these respects GEF involvement would be critical to achieving these objectives. The implementation of the PIDR is expected to need further support from GEF in a manner that will be refined during the first phase of the APL.

E. Summary Project Analysis (Detailed assessments are in the project file, see Annex 8)

1. Economic (see Annex 4):

Other (specify) NPV=US\$ million; ERR = % (see Annex 4)

This project is not suitable for global cost-benefit analysis because its activities produce benefits that either are difficult to quantify in economic terms (capacity building, governance, living conditions) or are not predefined (because of the program's demand-driven approach). Nevertheless, specific guidelines would be integrated into the operations manual to ensure that (i) projects that do lend themselves to economic evaluation are evaluated and (ii) selection criteria are defined to preclude uneconomical projects from eligibility. A major criterion of evaluation would be analysis of least-cost alternatives for project-financed activities, comparing the cost of similar activities financed by other sources.

2. Financial (see Annex 4 and Annex 5):

NPV=US\$ million; FRR = % (see Annex 4)

Financial support to subprojects

Steps for subproject financing through PROADEL:

- Beneficiaries submit a request to Decision Committee for approval.
- After approval, a financing contract is signed between the concerned LPMU and the beneficiaries. Beneficiaries should have already opened an account at a bank or microfinance institution accredited by PROADEL (convention signed between microfinance institution and PROADEL). Communities would be required to cofinance subprojects, but their level of financial participation would depend on the type of activity to be financed and would be finalized during appraisal. Subproject financing would be through matching grants to the communities, not credit.
- The beneficiaries would contract and finance subproject implementation.

Cofinancing with other donors

This project would be cofinanced with the AFD with parallel arrangements, with support focused on participatory assessments, community organizations, local planning, and subproject implementation and management (part of Subcomponent 2.1).

Fiscal Impact:

The project would support fiscal decentralization by helping the Government of Chad define its modalities. PROADEL would support completion of the draft law on the transfer of resources to local governments and help the Ministry of Decentralization to finalize the application texts to allow local governments to acquire financial autonomy.

3. Technical:

During the preparation phase the Government of Chad, in collaboration with key stakeholders and other donors, identified areas of progressive geographical coverage. They agreed that the first phase of the program would concentrate on areas where it is likely to succeed, areas that would be socially challenging during the oil era, and areas representative of the agroecological diversity of the country. PROADEL would begin in Mandoul Occidental, Mandoul Oriental, and Bahr Sara and expand to Dodge, Lac Weye, Ngourkosso, Tandjile Est, and Tandjile Ouest. It would cover La Nya Pende, La Pende, and Monts de Lam, once FACIL is no longer active. And it would launch studies and pilot activities in Chari, Baguirmi, Loug Chari, Dababa, Bahr Koh, Barh Signaka, Fitri, and Bahr El Gazal to refine the participatory approach in pastoral areas and to implement household energy activities in the N'Djamena woodfuel supply basin (see annex 16).

Quality of subprojects. The Project Implementation Manual includes technical criteria for the eligibility of subprojects. Deconcentrated line ministries would be involved in subproject evaluation and approval to ensure technical conformity with national standards.

4. Institutional:

4.1 Executing agencies:

Project Steering Committee

A multipartner approach. At the central level, a single Steering Committee would be established to monitor and guide implementation of PIDR projects, including PROADEL and ASPOP. The Steering Committee would consist of:

- Representatives of ministries (MLMUH, MPED, MA, ME, MEE, MTP, MD, and others).
- Representatives of civil society (Decision Committees, NGOs, and producer organizations).
- Representatives of the project team as observers, when concerned.
- Representatives of donors as observers.

Implementation

Decentralization is evolving. The project would support the decentralization agenda, but decentralization is still in its early stages, and its effective implementation is linked to political variables. So while PROADEL would facilitate implementation of a decentralized administration, it is designed to function independently of decentralization. Elected committees would be established at the *sous préfecture or département* level and

would be in charge of development plans and subproject evaluation and approval. Once local elected decentralized authorities are in place, the project would strengthen their capabilities so that they could take over the responsibilities of PROADEL Decision Committees.

Though supported by the Government of Chad, the participatory approach is still at an early stage, particularly in the accountability of technical and administrative entities. This issue would be addressed in the capacity-building component.

4.2 Project management:

Limited managerial capacity is a serious constraint at the central and the decentralized levels. Staff would be recruited through a competitive and transparent process and would receive training through the project.

4.3 Procurement issues:

The 2000 Country Procurement Assessment Report for Chad focused on the Government's capability to manage public resources and on the impact of recent fiscal reforms on procurement (see annex 6). After the assessment, the Government adopted new Instructions for Bidders (Guide aux Soumissionnaires) to clarify the procurement issue. An assessment of the procurement capacity of PROADEL's preparation team was completed during project preparation, leading the Government to agree to implement recommendations for improvements in procurement efficiency (annex 6). Because most procurement would be conducted at the local level, particular attention during appraisal was paid to procurement rules and procedures that would apply to community-based subprojects and carried out by community participation procedures acceptable to the Bank and described in the Project Implementation Manual. While the PMU at the national level would be responsible for monitoring all procurement-related issues for project implementation, the LPMUs at the regional level would be responsible for coordinating project activities at the community level.

4.4 Financial management issues:

To better manage the project and ensure sound and effective financial management, PROADEL is developing a financial management system comprising (i) an administrative, financial, and accounting management manual to be discussed during negotiations and finalized before effectiveness and (ii) a computerized information, monitoring and evaluation, accounting, and financial management system to provide accurate and timely information on the status of the project. The system would (i) be user friendly and adaptable over time, taking into account the progressive geographical extension of the project; (ii) allow use of a transparent accounting and financial management system at the national and regional levels; (iii) allow capture of the flow of funds; and (iv) have adequate arrangements for cost monitoring for all project expenditures. The project's financial management staff, which would comprise a financial management specialist and an accountant at the national level and three accountants at the regional level, would be adequately trained to handle the system, ensure good financial management, and produce all required reports and statements on time.

5. Environmental:

Environmental Category: B (Partial Assessment)

5.1 Summarize the steps undertaken for environmental assessment and EMP preparation (including consultation and disclosure) and the significant issues and their treatment emerging from this analysis.

An environmental assessment and an environmental and social management framework were completed prior to appraisal, with local stakeholders involved in the preparation. The final environmental assessment and environmental and social management framework were received by the Bank on November 5, 2002, and have been available in Chad and at the Bank's Infoshop since November 21, 2002.

Due to the community-driven nature of the project, with subprojects chosen by communities, it is impossible to know from the beginning what the project's exact environmental impacts would be. Consultants have met with local associations, local authorities, and NGOs in several *départements* representative of each agroecological zone (sudanian, sahelo-sudanian, and sahellian) to identify and appreciate subprojects that would be requested by communities and funded by PROADEL. The consultants could therefore evaluate related potential environmental impacts. Of all subprojects potentially funded by PROADEL, rural roads improvement and construction are most likely to have negative impacts on the environment. But any subproject (roads, wells, schools, productive activities) could affect the environment. Therefore subprojects would be systematically reviewed in advance, and appropriate measures would be taken to fully disclose potentially negative environmental impacts.

5.2 What are the main features of the EMP and are they adequate?

The proposed environmental and social management framework for environmental impact assessment is founded on PROADEL's design. Therefore, it is proposed:

- (i) To create an environmental and socioeconomic management cell in the PMU at the national level.
- (ii) To create environmental and socioeconomic technical cells in the LPMUs.
- (iii) To include representatives of the Ministry of the Environment and Water in the Subprefectural Decision and Approval Committees and Departmental Decision and Approval Committees, which are responsible for subproject approval.
- (iv) To build the social and environment assessment capacity of these committees.

The mandate of the PMU cells would include the training of LPMU cells and the monitoring of LPMU cells and the activities of the Subprefecture and Departmental Decision and Approval Committees. The PMU cells would have to produce standard checklists for subprojects with negligible environmental and socioeconomic impacts. The PMU cells would have to actively participate with the LPMU cells and Subprefecture and Departmental Decision and Approval Committees in the preparation of environmental impact assessments and in environmental monitoring for subprojects with more significant environmental and socioeconomic impacts. Subprefecture and Departmental Decision and Approval Committees would be responsible for appraising the social and environment aspects of subprojects, including classifying subprojects, listing safeguard policies requirements, reviewing assessments, and monitoring mitigation plan implementation. The LPMU cells would assist Subprefecture and Departmental Decision and Approval Committees to ensure that national and donor safeguard policies are respected.

Since LPMUs and Subprefecture and Departmental Decision and Approval Committees would be new management units, considerable training would be needed to make them operational. This training would be provided by PROADEL (Component 4) and should be planned and executed by the PMU cell at the national level.

5.3 For Category A and B projects, timeline and status of EA:

Date of receipt of final draft: 11/05/2002

5.4 How have stakeholders been consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed environment management plan? Describe mechanisms of consultation that were used and which groups were consulted?

Following an information campaign, the consultants visited various *départements* between April 17, 2002, and May 19, 2002. They went to the chief town of each *département*, *sous préfecture*, and *canton*. Local political authorities, civil society representatives, producer organization representatives, women's groups, and community associations were invited to express themselves on local difficulties impeding the sustainable development of their communities.

For household energy activities, some 100 villages already collectively manage their wood resources and are extremely satisfied doing so. They say that the environmental damage that had been occurring earlier stopped completely once the management plan was implemented.

5.5 What mechanisms have been established to monitor and evaluate the impact of the project on the environment? Do the indicators reflect the objectives and results of the EMP?

The monitoring and information system of the project would include environmental assessment monitoring. The environmental and socioeconomic management cell in the PMU would be responsible for following up on environmental indicators.

Furthermore a larger natural resources monitoring system would be set up and would be cofinanced by the Global Environment Facility. It would provide surveillance of renewable resources to aid local stakeholders in decision-making.

6. Social:

6.1 Summarize key social issues relevant to the project objectives, and specify the project's social development outcomes.

Measures for the inclusion of marginalized groups—particularly women, youth, HIV-AIDS-affected people, and transhumant herders.

Women, youth, HIV-AIDS-affected households, and transhumant herders are traditionally excluded from economic choices concerning communities (poor women constitute a particularly weak group), and frequent conflicts between herders and farmers in the sudanian and sahelian zones often prevent the involvement of those groups. Inclusion of marginalized groups must be effective both at the decision-making level (Decision Committees) and at the subproject level (benefit from investments). Information campaigns and sensitization efforts would strongly focus on these issues.

Composition of Subprefectoral Decision and Approval Committees.

Having Subprefectoral Decision and Approval Committees at the intervillage level, where people know each other and share the same cultural background, would facilitate the process. But there are many areas in Chad where traditional and decentralized administrative authorities may have difficulty coming to agreement. The project would subcontract trained *animateurs* to assist communities in their needs assessments.

Specific social assessments have been completed in the *départements* PROADEL would cover to provide the LPMU and *animateurs* with the necessary knowledge of the social environment.

6.2 Participatory Approach: How are key stakeholders participating in the project?

Stakeholders have been included in the project design since the earliest stage of preparation and would be involved in implementation at several points:

- The terms of reference of the feasibility studies (which includes a social assessment) have been discussed with representatives of NGOs.
- The project preparation working group includes representatives from the Government of Chad, civil society, and women.
- Several workshops have been and would be held in the outlying regions to seek the advice and comments of local beneficiaries and stakeholders. The Project Implementation Manual has been discussed with communities, and an illustrated simplified operating manual in local language would be produced and disseminated beforehand.
- Stakeholders would name their own representatives to local Decision Committees through a participatory process preceded by an information campaign.
- Civil society representatives would have a majority of seats in Decision Committees.
- Specific procedures would be put in place to make sure that women and other marginalized social groups are involved in project preparation and implementation.
- Local communities and civil society will be actively involved in the monitoring of global environmental benefits

Participatory stakeholder involvement lies at the core of project goals and activities. Partnerships between civil society and local communities will be built in the devising of locally appropriate integrated ecosystem management plans. Participatory monitoring and environmental information management will also be strongly emphasized. Local communities and civil society will be actively involved in the monitoring of global environmental benefits.

The baseline scenario was designed following a preparation phase of one year and a half involving all the stakeholders implied in the environmental sector in Chad: representatives of the administrations, NGOs, research institutes (both national and international), local communities (mayors), producers organizations, and private sector (Coton Tchad for example). Each of the 3 multi-donor missions gathered more than 150 participants from various horizons, and each undertook visits to the field (representing all the Chadian ecoregions except Sahara). All along and since then, technical working groups have been put together and meet regularly to support the design of projects activities. A communication plan is being put together, involving various media including radio talks, in order to keep the stakeholders of rural development in Chad as well as the population aware of on-going activities and priorities. During PIDR implementation, beneficiaries will be placed in the driving seat, following CDD approach, by participating to decision making committees and will be the major actors (sources and end-users) of monitoring, evaluation, and information procedures. They will also be intimately involved in ecosystem management planning at larger spatial areas through the development of protected areas management plans that affect multiple local communities.

The GEF project has been designed during the elaboration of the NEAP and the PIDR thereby capitalizing upon these meetings and workshops. The following major stakeholders

on biodiversity conservation and environmental management have been involved in the preparation of the GEF project:

- Administration: Ministry of Environment and Water, Ministry of Agriculture, Ministry of Livestock, and others concerned by rural development (Energy, Health, Transport, Education).
- Information centers / Research institutions: National Center for Research Support (CNAR), Training and Study Center for Development (CEFOD), Veterinary Research Laboratory of Farcha, N'Djaména University's Library, Committee for the Lake Chad Basin (CBLT).
- Beneficiaries: representatives of producers organizations like the "Plateforme Paysanne" (Peasants' Platform), representatives of women organizations (CELIAF – Cellule de Liaison et d'Information des Femmes du Tchad), members of the private sector (Cotton Chad), and also just beneficiaries.
- International institutions: the donor community (UNDP, GEF, France, World Bank, Germany, Japan, EC, etc.) and international NGOs (mostly WWF).

All these stakeholders will remain involved during final preparation and implementation: (i) the PROADEL steering committee, whose composition will be finalized during preparation, is designed to be a real platform, where decisions are made, for real partnership between the different stakeholders of rural development in Chad, (ii) emphasis has been given to the Information / Education / Communication components of all PIDR programs to keep all actors informed and promote adaptive learning, (iii) annual and semi-annual planning meetings will be held in N'Djaména but also – and mostly – in the departments benefiting from the PIDR, where all local actors will be invited to participate, and (iv) a memorandum of understanding has been signed by all the donors involved in rural development and environment in Chad, constructing the bases for a long term partnership.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

NGOs and civil society have been consulted extensively throughout the project's preparation. During implementation collaboration with NGOs would be a key element of success because NGOs can (i) act as intermediaries for communities; (ii) provide services to the project, such as needs assessments, training workshops, and project monitoring; (iii) implement subprojects for the communities; and (iv) be elected to Decision Committees as representatives of civil society.

6.4 What institutional arrangements have been provided to ensure the project achieves its social development outcomes?

The project would work in close collaboration with national institutions to make sure that financed investments are fully supported and staffed.

6.5 How will the project monitor performance in terms of social development outcomes?

Social outcome indicators would be included in the monitoring system and linked to poverty reduction efforts. The indicators would be in common with the Poverty Monitoring System set up under the PRSP process.

7. Safeguard Policies:

7.1 Are any of the following safeguard policies triggered by the project?

Policy	Triggered
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	Yes
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	Yes
Forestry (OP 4.36, GP 4.36)	No
Pest Management (OP 4.09)	No
Cultural Property (OPN 11.03)	Yes
Indigenous Peoples (OD 4.20)	No
Involuntary Resettlement (OP/BP 4.12)	Yes
Safety of Dams (OP 4.37, BP 4.37)	No
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	No
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	No

7.2 Describe provisions made by the project to ensure compliance with applicable safeguard policies.

The environmental assessment of the project conducted during preparation has given a good indication of the cumulative environmental impacts to be expected from the project's generic investments. By identifying issues in advance, proposing measures or changes in technology or construction materials, and recommending methods for monitoring environmental indicators (through local-level institutions and structures) commonly affected by project-funded investments, the time and effort required for specific environmental and social assessments of subprojects would be greatly reduced. The environmental assessment of the project also proposes methods for increasing local government, community, and other partners' capacities for environmental appraisal and monitoring. The assessment suggests:

- Creating an environmental and social screening, evaluating, and supervising mechanism to ensure that funded subprojects are environmentally and socially sound and sustainable and that any adverse environmental or social consequences are recognized early in the project cycle. Such a mechanism would allow foreknowledge of the major environmental and social issues and impacts of individual subprojects, the set of measures to avoid them or mitigate those that are unavoidable, and the estimated costs of those measures.
- Raising community awareness about the environmental and social impact of project-funded activities and promoting ways to mitigate or avoid negative effects. This would be done through the project's information, education, and communication activities, which would assist in disseminating information related to good practices. Other information about appropriate construction materials and methods in environmentally sensitive areas, site selection criteria, and other measures to mitigate likely adverse impacts could be disseminated through technical handbooks or other means.
- Finding methods for supporting improved natural resource management through the project's community-based interventions. The project would facilitate community understanding of the relation between natural resources and well-being, the need to improve both, and the need for action to grow out of understanding and be based on the community's own commitment and local structures. Because poor communities often lack the impetus and initial capital necessary to get started, environmental problems often have to be proactively targeted at the community level. The project would have an active role promoting and supporting projects aimed at improving communities' management of the natural resources that they control and depend on for their livelihoods.

F. Sustainability and Risks

1. Sustainability:

The long-term vision of the program is more decentralized management of public resources to reduce poverty in local communities by taking into account their priorities. Although for operational reasons PROADEL would have to establish transitory structures and rely on donor financing, particular attention would be paid to institutional and financial sustainability.

This would be achieved through progressive integration of the financing mechanism into the ordinary public resources management framework at the national and decentralized levels. Only then could the mechanism serve as a channel to transfer oil revenues or Heavily Indebted Poor Country (HIPC) Debt Initiative funds to local communities, as foreseen in the Law on Oil Revenue Management.

The sustainability of PROADEL would first require that financed subprojects contribute effectively to PRSP implementation. Even though the details of PRSP implementation are not yet fully defined, the following principles should be taken into account:

(i) PROADEL should aim at respecting normal budget procedures. The challenge is to respect programmatic budgeting per sector for resources that are fungible (since they are supposed to finance priorities established by communities in a reactive manner). A possibility is to budget such resources under the Public Investment Budget with a tentative allocation per sector and ; (ii) at the operational level, two types of information should be made available to sector ministries: information contained in local development plans for sector ministries to update their plans (map of schools, health centers, water points, and the like) and budget their resources accordingly, and information investments that are ongoing or completed to avoid duplication and to take into account such achievements in the monitoring and evaluation of their sector programs. This exchange of information would take place at the level of the Decision Committees where administration would be represented and would require active involvement from these administrations.

Second, sustainability would require a synchronization of the institutional arrangements with the decentralization process that is still at its early stages. As the program is implemented and decentralization actually takes place with elected local authorities progressively in place, responsibilities involved in the mechanism put in place by PROADEL, in particular those of local Decision Committees, would be transferred to such decentralized authorities.

Third, the impact of PROADEL would require the sustainability of investments and infrastructure financed by the project. This would first be ensured by actual participation of beneficiaries in the decision on investments and by their financial and in-kind contributions for implementation. Beneficiaries would be responsible for defining their priorities, supervising implementation, and managing and maintaining such investments. Particular attention would be paid to strengthening the capacities of local communities.

Furthermore, financing of subprojects would depend on the provision by beneficiaries of a maintenance plan with responsibilities, management, and financing arrangements, and on the availability of the necessary human resources (teachers, health personnel, and the like).

1a. Replicability:

Interventions to be advanced under the GEF alternative framework appear to have great potential for replicability, not only within Chad, but on the rest of the African continent. That participatory or co-management of natural resources and protected areas is critical to sustainability still remains a novel concept. While a few CDD operations in Chad in the past have partially adopted these principles, the implementation of the full suite of GEF incremental activities under the PIDR framework will enable a mainstreaming of this new concept.

Replication Plan:

The project’s implementation model pivots around the scale-up and replication in all of Chad’s departments of subprojects and other interventions based on widespread dissemination of good practice in community based IEM. The replication of good practice will be advanced through consultations, workshops, outreach materials, and other public and inter-country exchanges. These lessons will be publicized and made available worldwide through either the PROADEL web site or a clearing-house mechanism set up by the GEF. Moreover, the attention being paid to the economic feasibility of the environmental projects and their relationship to sustaining rural livelihoods also augurs well for replication; the positive returns from locally appropriate sustainable resource practices, such as water harvesting and soil fertility replenishment techniques, will be clearly visible and other communities and farmers will seek to achieve similar benefits. Local training activities will facilitate a sharing of experiences and best practices from other countries, such as Niger, that have successfully implemented similar programs. Meanwhile, dissemination of best practices in Chad to other countries in and outside the region will be promoted by project staff and key stakeholders, facilitated by an earmarked budget for outreach activities. Participatory monitoring and environmental information management will also enable the extraction of important lessons from the project that will be a key element of successful replication in other areas.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk From Outputs to Objective	Risk Rating	Risk Mitigation Measure
Decision committees are not elected in a transparent and democratic way	M	Involvement of the maximum number of beneficiaries, encouragement of discussions, consensus and agreements between them.
Local populations are not interested in the realization of community activities	N	Local needs are so high that this is unlikely. However, conditions of local contribution should be set at a reasonable level and be comparable to those of similar projects in Chad.
Lack of coordination and synergy with national policies and with other rural development projects.	M	Strong communication will be ensured. Concerned technical ministries will be involved in subprojects implementation. Departmental development frameworks will be elaborated, compiling all the national technical data.
From Components to Outputs		
Beneficiaries do not have enough	M	However, conditions of local contribution

resources to cofinance subproject investments		should be set at a reasonable level and be comparable to those of similar projects in Chad. Support will be provided for income-generating activities under ASPOP.
Beneficiaries do not have enough capacity to participate in the financing of the investment subprojects	M	The financial management capacities of the beneficiaries will be reinforced through training planned in the project.
Local decision committees suffer from political interference and cannot operate autonomously	M	Specify rule and conditions in loan agreement, including "social audits," full and transparent disclosure, and so on.
Competent service providers and sufficient resources are not readily available.	M	A careful selection of program areas in the first phase will be made, and adequate training can be provided and international invitations to bidding launched.
Existing financial institutions do not allow for realization of the necessary transfers of funds	M	A direct payment by LPMUs is possible in parallel to reinforcement of the institutions capacities. Besides, PROADEL will establish conventions with microfinance institutions, allowing them to act as financial intermediaries to beneficiaries.
Overall Risk Rating	M	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

G. Main Loan Conditions

1. Effectiveness Condition

The conditions of effectiveness of the IDA credit will be:

- LPMUs have been established in Koumra and Moundou, each with the following staff: a regional coordinator, an accountant, a monitoring and evaluation specialist, a social and environmental specialist, and a training and communication specialist, all in a manner satisfactory to the Borrower and to IDA.
- The Borrower has adopted the Project Implementation Manual; the Monitoring and Evaluation Manual; and the Administrative, Financial, and Accounting Manual in a form and substance satisfactory to IDA.
- The Borrower has appointed independent auditors, under terms and conditions acceptable to IDA.
- The Borrower has installed a financial management and accounting system acceptable to IDA.
- The Project Account has been opened and the initial contribution of FCFA 495 million has been deposited in it.

H. Readiness for Implementation

The engineering design documents for the first year's activities are complete and ready for the start of project implementation.

1. b) Not applicable.

The procurement documents for the first year's activities are complete and ready for the start of project implementation.

The Project Implementation Plan has been appraised and found to be realistic and of satisfactory quality.

The following items are lacking and are discussed under loan conditions (Section G):

I. Compliance with Bank Policies

This project complies with all applicable Bank policies.

The following exceptions to Bank policies are recommended for approval. The project complies with all other applicable Bank policies.

Noel Rene Chabeuf
Team Leader

Joseph Baah-Dwomoh
Sector Manager

Ali Khadr
Country Director

Annex 1: Project Design Summary

CHAD: Local Development Program Support Project

Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Sector-related CAS Goal:	Sector Indicators:	Sector/ country reports:	(from Goal to Bank Mission)
<p>Alleviate poverty Improve the wellbeing of rural populations through sustainable economic growth in rural zones and local governance</p>	<p>Percentage of rural population below US\$1 a day School primary enrollment rate in rural areas Alphabetization rate Medical coverage rate Under-5 mortality rate in rural areas Percentage of the population with sustainable access to safe water Agricultural GDP annual growth Food price index</p>	<p>National statistics UNDP Human Development Reports Updated CAS Studies on poverty. PRSP surveys Report on the monitoring of rural sector</p>	<p>Oil-generated revenues are managed in a sustainable way to satisfy the financial needs in the key sectors for alleviating poverty Political stability, for the development and successful execution of the strategies of the sectors and the continuation of decentralization and local democratization</p>
Program Purpose:	End-of-Program Indicators:	Program reports:	(from Purpose to Goal)
<p>Reduce poverty and promote sustainable development in the rural areas by supporting governance and participation at local level.</p> <p>Phase I will refine the approach and mechanisms in a limited number of areas and will support the Government of Chad in the beginning stages of its decentralization agenda</p> <p>Phase II will expand activities to others <i>départments</i> while supporting the largely engaged decentralization process</p> <p>Phase III will achieve national coverage and consolidate and integrate achievements in lasting local development processes</p>	<p>75% of targeted communities in the strong and progressive areas of intervention have adopted their Local Development Plans</p> <p>1% of oil revenues are disbursed based on Local Development Plans</p> <p>10% of resources actually transferred to local authorities are disbursed based on Local Development Plans</p> <p>The literacy rate increases Natural resources are increasingly used sustainably to the profit of local villages</p>	<p>Supervision missions Evaluation of each phase: midterm review and final ICR Report of monitoring units of the rural sector Report of the PRSP</p>	<p>Social infrastructures financed by the project are adequately staffed and maintained in satisfactory working conditions Targeted areas profit from complementary activities carried out by other development programs A sufficient number of communities' profits from the program to have a significant impact at the national level Absence of major external and negative shocks (drought, epidemics, war, social unrest) Law 36B applied throughout the country</p>

Project Development Objective:	Outcome / Impact Indicators:	Project reports:	(from Objective to Purpose)
<p>Assist the Government of Chad in designing and implementing a decentralized and participatory financing mechanism that will empower local communities and institutions to manage development funds in a transparent and sound way and according to their own priorities and eventually contribute to the decentralization agenda</p>	<p>Outcome</p> <p>75% of targeted communities in the strong and progressive areas of intervention have adopted their Local Development Plans</p> <p>50% of these communities have at least one subproject whose last tranche has been disbursed</p> <p>75% of Decision Committees are in place and have met at least once (in the five Sudanian departments to be covered)</p> <p>At least 300 villages in the N'Djamena woodfuel supply basin and 100 villages in the Moundou and Sahr basin sustainably manage their wood resources</p>	<p>Supervision missions</p> <p>Evaluation of each phase: midterm review and final ICR</p> <p>Program monitoring and evaluation reports</p> <p>Rural Development Sector Monitoring Unit reports</p> <p>PRSP Poverty monitoring system</p> <p>Sample studies and surveys</p>	<p>Economic, financial, and social stability of the country and the concerned areas</p> <p>Adequate political and budgetary support to the decentralization agenda</p> <p>Local governments are elected in a transparent and democratic way</p>
	<p>Impact</p> <p>Improvement of access to basic social and economic services and infrastructure</p> <p>Increases in utilization of infrastructures and social services and satisfaction of users</p> <p>Increase in school attendance ratio</p> <p>Increase in percentage of population with access to safe water</p> <p>Increase in number of staffed and equipped health centers per inhabitants</p> <p>50% of targeted communities have been delegated the carry out of sub-projects</p> <p>wood resources contribute to the budget of villages.</p> <p>Decrease in the number of conflicts related to land tenure in the areas</p>		

	concerned by the project land initiatives		
<p>GEF Operational Program:</p> <p>Enable local communities to combat desertification, preserve biodiversity, and maintain the productivity of natural assets within fragile, yet globally-significant ecosystems based on integrated environmental management principles and planning</p>	<p>Outcome / Impact Indicators (achieved by end of program):</p> <p>Outcome:</p> <p>Incremental adoption of sustainable agricultural techniques (e.g., direct seeding) in 25% of targeted areas</p> <p>10% increase in total area previously classified as forest under rehabilitation or active reforestation in priority zones</p> <p>At least 50% of LDPs reflect IEM principles and actively promote conservation of globally significant biodiversity</p> <p>Impact by the end of project:</p> <p>Majority of LDPs reflect shared vision for national IEM and corresponding principles</p> <p>Level of endangerment of endemic mammals, birds and plant species reduced by at least one category</p> <p>10% increase in estimated total area of degraded land rehabilitated in targeted areas</p> <p>Existence of a ready pipeline of community conceived and vetted micro-projects, eligible for funding under future oil revenue-sharing plans</p> <p>A common or similar understanding of good practice in IEM principles and planning achieved among majority of local communities in Chad</p> <p>Key national and local stakeholders are sensitized to the relationship between global environmental challenges and local development issues</p>	<ul style="list-style-type: none"> • Supervision missions • Rural Development Sector Monitoring Unit reports • Report of the PRSP 	<p>Absence of major environmental disaster(s)</p> <p>Sufficient number and broad base of communities profit from the program to have a significant impact on ecosystems/forests at the national level</p> <p>Targeted areas profit from other participatory development approaches (as PROADEL or PRODALKA)</p> <p>Targeted population actively cooperates one environmental concerns</p>

	Long-term needs for environmental data collection and analysis achieved through participatory monitoring and adaptive learning		
Output from each Global Component (GEF project):	Output Indicators (achieved by end of project):		
Component I: Financial support to local development subprojects Pilot and mainstream rural financing mechanisms for micro-projects that directly target local beneficiaries and can quickly achieve a positive global environmental impact when aggregated.	At least 10% of subprojects financed under PROADEL promote IEM 70% of these subprojects are completed and successfully implemented	<ul style="list-style-type: none"> • Supervision missions • Project monitoring and evaluation reports • Local Development Plan documents • Field missions • External audit mission 	Good coordination and synergy with the environmental policies and environmental aspects of other sector projects Local administrations and communities demonstrate good concern toward environmental issues
Component II: Capacity building for communities Build capacity 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.	IEM best practice guidelines are developed and disseminated to all targeted communities NRM needs assessments are conducted in at least 70% of targeted communities At least 30% of LDPs in targeted areas directly support or specifically address biodiversity conservation, sustainable land management, and IEM.	<ul style="list-style-type: none"> • Supervision missions • Project monitoring and evaluation reports • Training programs • Reports of training activities • Committees meeting minutes 	Communities demonstrate concern over environmental issues Good coordination and information exchange between communities regarding shared natural resources and ecosystem management issues on larger scales
Component III: Support for decentralization Strengthen decentralized natural resource management and environmental governance	Number legal texts have been adopted by the National Assembly or amended to reflect community-driven natural resource management and IEM for protected areas, and 50% of application texts are available 80% of sessions dedicated to training MWE agents have been implemented	<ul style="list-style-type: none"> • Laws on decentralization inventory • Official court transcripts concerning resource management cases • Legal and technical studies • Decentralization PER 	Government is willing to implement decentralization regarding environmental aspects
Component IV: Management and Information support Develop shared inventories, environmental management	Specialized databases and national environmental management information system (MIS) developed and initiated Common guidelines for data	<ul style="list-style-type: none"> • Project monitoring and evaluation reports • Development plan forms • Report of participation diagnosis (investigation near 	Inter-sectoral and inter-project collaboration (between the various environmental monitoring systems)

information systems, participatory monitoring methodologies and other tools for adaptive learning and long-term environmental decision-making	collection, processing, analysis, and exchange are established among communities and key project stakeholders GIS database with national coverage has been created at local scale MIS systems are used by stakeholders to enhance analytical capacity, exchange information, and identify critical needs and future cooperative investments	the recipients)	Good cooperation of communities on shared biodiversity inventories
Hierarchy of Objectives	Key Performance Indicators	Data Collection Strategy	Critical Assumptions
Output from each Component in Baseline PROADEL project:	Output Indicators:	Project reports:	(from Outputs to Objective)
<p>1. SUPPORT TO LOCAL DEVELOPMENT SUBPROJECTS</p> <p>Three categories of subprojects identified in the Local Development Plans are financed: (i) social and socioeconomic subprojects; (ii) environment and natural resources management subprojects; (iii) community infrastructures</p>	<p>70% of approved subprojects are completed (completion ratio) 80% of local beneficiaries contributions are actually paid (actual contribution ratio) At least 300 classrooms, 350 water supply infrastructures, 20 health infrastructures, 200 km rural roads will be built or rehabilitated These indicators will be analyzed per department and per category of subprojects</p>	<p>Supervision missions Evaluation of each phase: midterm review and final ICR Project monitoring and evaluation reports Local Development Plan documents Field missions External audit mission Environmental impact studies</p>	<p>Local administrations demonstrate good will and capacity toward the local development mechanism Good coordination and total synergy with the policies and sector projects</p>
<p>2. CAPACITY BUILDING TO LOCAL DEVELOPMENT STAKEHOLDERS</p> <p>Communities have put in place the Decision Committees (CDANSP and CDAND), prepared their Local Development Plans, and are able to implement their sub-projects in a participatory</p>	<p>75% of Decision Committees are in place and have met at least once 75% of targeted communities have adopted their Local Development Plans 70% of infrastructure carried out under subprojects are well maintained and operational (sustainability ratio)</p>	<p>Supervision missions Evaluation of each phase: midterm review and final ICR Project monitoring and evaluation reports Communication plan Training programs Reports of training activities Minutes of committees meetings</p>	<p>Committees are constituted in a transparent and democratic way; Auditing companies are in place Decentralized tax control system functions with decentralized agents of MEE</p>

<p>manner</p> <p>Priority training needs of contractors and beneficiaries are identified and responded to through implementation of training plans</p>	<p>650 training sessions or sensitization campaigns to the benefit of community-based organizations have been implemented at the community level</p> <p>Implementation ratio of the training plans established by the IRPCUs to the benefit of CBOs reaches 60%</p> <p>10% of the trainings (number of people trained) are specifically intended to vulnerable groups.</p> <p>10 microfinance institutions have been established or strengthened</p>		
<p>3. SUPPORT FOR DECENTRALIZATION</p> <p>A sound legal and regulatory framework for decentralization has been finalized and adopted</p> <p>Priority training needs of rural decentralized authorities and of central and decentralized administrations are identified and responded to through implementation of training plans</p> <p>Land tenure issues in pilot areas are identified and conflict resolution approaches are prepared and tested</p>	<p>Decentralization legal texts have been adopted by the national Assembly and 50% of application texts projects are available.</p> <p>Implementation ratio of the training plans established to the benefit of decentralized authorities reaches 60%</p> <p>The 3 CLTO decentralized units are operational</p> <p>10 pilot decentralized authorities capacities (commune level) have been evaluated and 8 of them are capable of receiving and managing public financial resources to take over local development</p>	<p>Laws on decentralization inventory</p> <p>Official court transcripts concerning land tenure cases</p> <p>Laws and decrees on the transfer of responsibilities and resources and woodfuel transport tax</p> <p>Legal and technical studies</p> <p>Decentralization PER</p>	<p>Government is willing to implement decentralization</p>
<p>4. MANAGEMENT AND INFORMATION SUPPORT</p> <p>The program is managed in conformity with defined procedures</p> <p>Necessary information is available, reliable, and</p>	<p>70% of activity reports produced by the execution authorities of the project and by the communities are rated satisfactory</p> <p>90% of the reports to be prepared by the CPCU under the project</p>	<p>Evaluation of each phase: midterm review and final ICR</p> <p>Project monitoring and evaluation reports</p> <p>Web site of the program</p> <p>Development plan forms</p> <p>Report of participation</p>	<p>Intersector and interproject collaboration (between the various systems of monitoring)</p>

regularly disseminated to the various stakeholders on time	monitoring and evaluation manual have been issued in a timely manner 80% of contracts signed by the CPCU have been executed on time	diagnosis (investigation near the recipients)	
Project Components / Sub-components:	Inputs: (budget for each component)	Project reports:	(from Components to Outputs)
1. Support to local development subprojects	Phase I: US\$ 12.8 millions	Supervision missions. Evaluation of each phase: midterm review and final ICR	Communities have enough financial capacity to cofinance projects Existence of sufficient and competent local contractors and service providers Local banks and financial institutions are available to channel LDF funds
	Phase II: US\$		
	Phase III: US\$		
2. Capacity building to local development stakeholders	Phase I: US\$ 18.3 millions	Disbursement reports (quarterly)	Human and material resources and communication infrastructures exist Elected local committees are respected and competent enough to assist beneficiaries
	Phase II: US\$		
	Phase III: US\$	Progress reports (quarterly)	
3. Support for decentralization	Phase I: US\$ 5.8 millions	Annual audits	Decentralization agenda is successfully implemented.
	Phase II: US\$		
	Phase III: US\$		
4. Management and information support	Phase I: US\$ 7.38 million		Actors and relevant implementing agencies are collaborating to provide timely data Funding is secured
	Phase II: US\$		

Annex 2: Detailed Project Description

CHAD: Local Development Program Support Project

The following parts describe all components and related implementation arrangements, including activities are not to be funded by IDA

By Component:

Project Component 1 - US\$13.95 million

Of which IDA Grant: US \$ 10.12 million

Financial support to local development subprojects

Objective:

PROADEL would provide matching grants to cofinance subprojects proposed by local communities (associations, organizations, and others) with legal status or decentralized local government entities (at the *commune* or *communauté rurale* level, once established). Its purpose is to reduce poverty by stimulating local development and improving communities' livelihood.

GEF Activities

A financial support would be established to co-finance community subprojects which will have a positive impact on the global environment and related integrated ecosystem management activities. Eligible activities will include environmental activities of medium and long term economic return regarding priority sites and proposed in the Local Development Plans. In such case, a percentage of the contribution requested from the beneficiaries will be financed. This will happen mostly by financing a percentage of the contribution requested from the beneficiaries (in the form of cash, materials or wages for labor) representing between 5 and 50 percent of total subproject costs. A final "positive list" of specific eligible activities will be agreed upon according to GEF principles during project appraisal; however, in all cases eligibility will be restricted to those subprojects proposed in Local Development Plans and that concern or affect the three priority zones. Finally, activities must be "incremental" investments having a medium or long-term economic return and manifesting barriers to their immediate implementation.

Some of the subprojects likely to be eligible include, *inter alia*: the reforestation and rehabilitation of gallery forests to prevent dune advancement; development of grazing corridors; activities that facilitate community co-management of protected areas; introduction of direct seeding, "*cordons pierreux*", and other agro-forestry techniques that can increase soil fertility, retain soil organic carbon, and limit erosion; pilot activities to demonstrate or disseminate more sustainable, alternative energy carriers to fuel wood and traditionally produced charcoal. The project would also support the development of local drought management plans and bushfire awareness programs. Also under this component, the interventions and lessons learned in the successful Household Energy Management Project would be replicated to a wider area of rural communities in the outskirts of Chad's second and third largest cities, Moundou and Sarh.

Fundamental Characteristics:

Three main principles would be applied with specific objectives:

- To avoid capture of financial resources by local elites, the project would make sure that every process (subproject identification, selection, and implementation) is participatory and that management of resources is transparent.
- To ensure sustainability of investments, contributions of beneficiaries would be mandatory, with local maintenance responsibility.
- To ensure that local sector issues are addressed, PROADEL would be demand-driven and offer an open menu of choices with a negative list.

Eligible subprojects:

PROADEL would be demand-driven and thus finance almost any type of community-based development project that communities deem important, so long as it is not included on the negative list and meets the eligibility criteria set out in the Project Implementation Manual. There are three main criteria: (i) communities would have to submit subprojects derived from a participatory assessment of their needs, (ii) communities would have to make contributions of their own (cash, labor, or materials), and (iii) subprojects would have to be sustainable, that is, a maintenance scheme has to be established (management committee, financial resources), the capacity of beneficiaries for maintenance of the subproject has to be improved, or competent human resources have to be available to run the infrastructure (health personnel, teachers).

The project would finance:

- Small social activities such as transport (bridges), education (classrooms), health (health posts, HIV/AIDS prevention and information, personnel training), and water and sanitation (wells).
- Management of natural resources activities such as erosion control, tree nurseries, forests management, and alternatives to fuelwood.
- Large-scale and more expensive collective infrastructure projects that would affect several villages or cantons, such as drilling, rural roads, and water supply systems. Such projects might be submitted by communes and would be eligible for a PROADEL IDA grant if they could not be financed through a relevant sectoral project.

Financial mechanisms

PROADEL has been designed to support and comply with the decentralization framework. Two options can be taken regarding the management of the funds: (i) direct management by the beneficiary groups in case they dispose of sufficient capacities and the financial structures exist or (ii) direct payment of enterprises and service providers by the Inter-Regional Project Coordination Units (IRPCUs) in case the above criteria are not matched. These criteria are detailed in the Project Implementation Manual. In both cases the beneficiaries order the funds. The final objective of the project is to make beneficiaries more responsible regarding the management of funds.

Chad is currently divided into 47 *départements*, which include 364 *cantons* (expected to be the future *communauté rurale*) with 108 "urban" communes, corresponding to prefectural and subprefectural *chefs-lieux*. Most of these urban communes have the same development issues as the rural areas surrounding them and would be covered by PROADEL. The biggest urban centers, N'Djamena, Moundou, and Sahr, have very different problems and would not be included in the project.

Following a participatory assessment of their needs, each village or district would prepare a Local Development Plan detailing its perceived priorities and listing activities to be financed (subprojects). Participatory appraisal would be supported by PROADEL (Component 2). Local Decision and Approval Committees would be constituted at the *sous préfecture* level or at the *département* level if demographic pressure is too low and if critical technical services are not represented at the *sous préfecture* level to approve Local Development Plans and subprojects of communities. The Subprefectoral or Departmental Decision and Approval Committees would be made up of elected representatives from the communities and the deconcentrated line ministries, but civil society would have a majority of the seats. Specific efforts would be made to encourage representation from underrepresented groups, such as women, nomads, and young people. Local Decision Committees would also be constituted at the *département* level to approve Local Development Plans and subprojects submitted by decentralized authorities. They would be comprised of elected representatives from the communes, the communities, and the deconcentrated line ministries, but civil society would again have a majority of the seats. Specific efforts would also be made to encourage representation from underrepresented groups, such as women, nomads, and young people. Each Subprefectoral or Departmental Decision and Approval Committees would analyze, approve, and consolidate Local Development Plans into a *Sous préfecture* or *Département* Development Plan. Arbitration might be necessary between several communities if, for example, two neighboring villages ask for a school. *Sous préfecture* and *Département* Development Plans would have to conform with policy planning and technical standards defined at the national and *département* levels. Communities would then prepare the subprojects' technical documents, with contracted technical assistance, if necessary. The Subprefectoral or Departmental Decision and Approval Committees would approve projects provided that (i) their content is consistent with national standards, (ii) they conform with the approved development plans, and (iii) a sustainability plan has been provided. The first section of the financing of the subprojects would be paid only if the beneficiaries have provided their contribution (cash, labor, or material). The levels of contribution are set out in the Project Implementation Manual and may evolve during implementation. They depend on (i) the type of subproject proposed, (ii) the region in which it is to take place, and (iii) other projects' local practices. The beneficiaries would then implement the subprojects.

The operational procedures would be consistent with similar Bank and non-Bank mechanisms in Chad, to facilitate the transition to a coordinated management system and the establishment of a network of community-development funds in Chad. Once local governments are elected and legally established, Decision Committees would include elected councilors and progressively hand over their responsibility to local governments (during subsequent APL phases).

Consistency with sectoral policies and projects

Given the demand-driven multisectoral nature of the program, the subprojects may touch upon a wide spectrum of sectors, including health, education, transport, energy, and water and sanitation. Because these projects must be consistent with national policy, the following precautions would need to be taken:

- Ensuring conformity. The subprojects must conform with the legal, regulatory, and technical standards defined by national policy. To this end (i) technical line ministries have been involved in the approbation process; (ii) each department would prepare a Departmental Development Framework to compile all the national sectoral data (technical standards, national policy) for use as a decision tool in the Subprefectoral or Departmental Decision and Approval Committees and the Project Management Units; (iii) the Subprefectoral or

Departmental Decision and Approval Committees would include deconcentrated line ministries representatives in the approval process of each subproject.

- Assessing the feasibility of other project involvement. Once local development plans have been identified and submitted by the communities, local sectoral projects would be consulted to establish whether or not they can support and implement any of the proposed subprojects.

-Ensuring sustainability. Each subproject would be required to provide evidence of sustainability through (i) a maintenance plan (financial plan, management committee) and (ii) the availability of the necessary human resources (health personnel, teachers).

-PROADEL documents (Local Development Plans, minutes of meetings, general documentation) would be sent to sector-based ministries, especially at the local action committee level.

An overview of the sectors in Chad (development status, existing projects, national policy) and of

their interactions with PROADEL is presented in annex 14.

Cost and financing:

IDA Grant would finance this component but communities contributions are supposed to add US\$ 1.1 millions and progressively the Government would progressively add some resources to finance additional sub-projects, once oil revenues are available.

Project Component 2 - US\$18.68 million

Of which IDA Grant: US \$ 4.48 million

Capacity building for local development stakeholders

Objective

The objective of this component is to strengthen the technical and organizational capacity at the community level for participatory approaches, needs assessments, project management, access to credit, or new poverty reduction behaviors. It would specifically target local communities and their associations, Subprefectoral and Departmental Decision and Approval Committees, and service providers (training institutions, NGOs, microfinance institutions). Given the multisectoral nature of the program, these capacity-building activities may concern a wide spectrum of sectors including health, environment, education, transport, and energy. This component would be implemented in local languages and would prioritize the learning-by-doing approach as opposed to the lecture approach.

GEF Activities

GEF activities under this component comprise technical assistance and capacity building support services to local communities, its decision committees, and community super-structures to integrate environmental concerns and integrated ecosystem management principles into local development planning. Specific training and organizational support will build the skills of communities in targeted areas to: (i) design and implement natural resources management strategies within an integrated ecosystem management framework; and (ii) pursue strategies and modalities to co-manage protected areas with government officials. These activities run in parallel to the first component, such that the conceptualization of subprojects (i.e. those aimed at reducing soil erosion, maintaining forest cover, and restoring woody vegetation) can more coherently address broader ecosystem challenges, such as watershed management.

The component has three subcomponents:

Subcomponent 2.1: Support to community participatory assessments and local development plan preparation and implementation

This subcomponent would be fully executed by an “opérateur” recruited through an international invitation to tender based on the terms of reference detailed in the Project Implementation Manual. Following training sessions, contracted animators would go to villages to assist local communities, recognizing their common interests, identifying their problems, understanding their priorities, and proposing solutions under a list of subprojects and preparing Local Development Plans. They would also assist local communities in electing representatives for the Subprefectoral and Departmental Decision and Approval Committees. After Local Development Plan approval by the Subprefectoral or Departmental Decision and Approval Committees, animators would assist communities in preparing subproject requests (technical documents, feasibility studies including environmental and social assessments, if required) and implementing them (contracting, monitoring, managing, and so on). Women, young people, transhumant herders, and other underprivileged groups would be targeted to ensure that (i) they receive their share of benefits from the project activities and that (ii) they are able to participate effectively in the decisions affecting the project and the development of their community. The participatory approach would have to be adapted to the local context. In particular, techniques would have to be different in pastoral areas, where most of the population is nomadic. To address this issue, complementary studies and pilot operations would be launched in the pastoral *départements* of Chari, Baguirmi, Loug Chari, Dababa, and Bahr El Gazal during the first phase of PROADEL.

GEF activities

GEF capacity building activities will proceed in a two-tiered strategy. At one level, collaboration between key stakeholders, including a super-structure of concerned communities, will be built to pursue integrated ecosystem management priorities at larger spatial scales. A systematic review of protected areas and other assessments in the three priority zones will be undertaken to identify needs for developing new or strengthening existing protected area management plans. On another level, support will be extended directly to local communities for capacity building and, in some cases, facilitation assistance to help co-manage protected areas identified in the protected areas review. These activities will incorporate indigenous knowledge and participation of community leaders. Selected communities will be supported to conduct participatory needs assessments in alignment with “gestion de terroirs” and community based natural resources management principles. In rural areas in the outskirts of Moundou and Sarh, capacity building will emphasize the promotion of more sustainable household energy alternatives. In pastoral areas, capacity-building will focus in particular on reducing overgrazing and addressing conflicts between pastoralists and farmers. In addition to these activities, scientific and technical capacity will be built in biosphere reserve management, and targeted support will be given to Chadian stakeholders in savannah and drylands management under a future UNEP/GEF regional initiative on Dryland Biodiversity in West African Biosphere Reserves.

Subcomponent 2.2.: Training programs at the community level

Training programs would be provided by local subcontractors and would include a wide variety of modules determined during the participatory assessments. They would be centered on:

- Strengthening of Subprefectoral and Departmental Decision and Approval Committees so that they can execute the activities envisaged under the project (local governance, strategic planning, human resources management, environmental and social assessments, monitoring, communication, and the like).

– Specific training for communities to promote behavior changes contributing to poverty reduction. Training could include information, sensitization, and pilot initiatives as demonstration tools: literacy programs to accompany village and district organization, HIV/AIDS prevention and awareness training (in collaboration with the World Bank HIV/AIDS Project), campaigns for better nutrition and hygiene, better techniques for management of natural resources, especially in the N’Djamena and Moundou woodfuel supply basins, and so on. For increased impact and better efficiency, attending some of these modules would be mandatory for communities to access financing for their subprojects.

GEF Activities

At an early stage of the project an “IEM Guideline Document” (being prepared with GEF PDF-B support) will also be disseminated. This will finalize the subprojects eligibility criteria and “positive list” under the program. The document will serve as a blueprint for how to consolidate IEM approaches in local development planning under the framework of the PIDR. Under a “train the trainers” model, it will be used for capacity-building purposes to increase the skills and knowledge base of decentralized Ministry of Water and Environment agents and local NGO service providers.

Subcomponent 2.3.: Institutional support to microfinance institutions

The objective of this subcomponent is to provide efficient financial services to poor communities in rural areas. Following several meetings involving Chadian authorities and donors, it has been agreed that the project would concentrate its activities on:

- Support for defining and implementing a regulatory framework.
- Specific training for microfinance institutions and communities on savings and credit basics.
- Support networks reinforcement and expansion of existing microfinance institutions: feasibility studies, business plans set-up, equipment, and the like.

This support would consider (i) the national policy, which is currently being completed; (ii) the national and regional legal framework (COBAC); and (iii) other projects involved in microfinance support in Chad; and would comply with and contribute to implementation of the microfinance action plan of the PRSP.

These activities would be more specifically defined in a feasibility study currently under way.

Cost and Financing:

AFD will totally finance activities of the subcomponent 2.1. in the southern region and in the departments of Dababa, Baguirmi and Loug Chari, while the Government of Chad would add some resources to conduct pilot activities in Chari, and Bahr El Gazal for this subcomponent. Support to communities (subcomponent 2.2.) would be financed by IDA Grant and the Government would also contribute to this subcomponent by financing institutional capacity building of administrative services (AEDE, deconcentrated services). IDA Grant will also fully finance the subcomponent 2.3.

Project Component 3 - US\$ 5.06 million
Of which IDA Grant: US \$ 2.4 million
IDA Credit: US \$ 1.1 million

Support for decentralization

Objective:

While the project is being designed independently of the decentralization process, which is still in its early stages, the overall objective of the proposed support is to assist the Government of Chad in the effective implementation of its decentralization policy. It includes the following four subcomponents:

Subcomponent 3.1.: Support to the completion of the legal and regulatory frameworks of the decentralization

This would consist of studies and technical support to the Ministry of Decentralization in the completion of necessary laws and regulations and in the formulation of a master plan for implementation of the decentralization program. More specifically, it would cover:

- Definition of the mandate and responsibilities of the decentralized authorities at the regional, departmental, *commune*, and *communauté rurale* levels.
- Definition of the programming and planning process to be followed by the *communes* and *communautés rurales* (annual action plan, work program, development plans); the setup of *communautés rurales*.
- Status of elected people.
- Administrative deconcentration.
- Fiscal decentralization framework and definition of financial mechanisms to be established to channel funds to the *communes* and *communautés rurales*, including taxes on the transport of woodfuels.

GEF Activities

GEF incremental funding will advance the Government's decentralization agenda, by strengthening national capacity for decentralized environmental governance. Interventions under this component will target the finalization and implementation of sound regulatory frameworks and workable structures for community involvement in environmental management or joint management of protected areas. This may involve modifications to the legal framework and targeted assistance to communities to work with the Ministry of Environment and Water to adopt local regulations for such joint management. In addition, modifications to the institutional or legal framework for adopting taxes and/or user fees to woodfuel and charcoal sales will be pursued to adjust incentives for proper management of wood resources. Land tenure and security issues will also be addressed through assistance to communities to collaborate with Ministry of Environment and Water officials in the adoption of local regulations and workable modalities for joint management of protected areas. Support may include modifications to the legal framework that hinder direct community or joint environmental management.

Subcomponent 3.2.: Capacity building

This second subcomponent aims at strengthening the institutional and technical capacities of all key stakeholders of the decentralization process at the national, regional, and local levels.

It would include:

- a) Carrying out an assessment of the Ministry of Decentralization training needs to strengthen its capacity to fulfill its mission of managing and guiding the decentralization process. A well-targeted training program for its three key directorates would be designed and implemented throughout the project.
- b) Acquiring equipment and vehicles, and rehabilitating or constructing offices for the Ministry of Decentralization.
- c) Providing technical advisory services to the Ministry of Decentralization: (i) in the definition of a communication strategy on decentralization, (ii) in the organization of information and awareness campaigns on decentralization, (iii) in the establishment of a management information system on local governments, and (iv) in the formulation of specific

training modules on decentralization for all stakeholders (local governments, when established; decentralized authorities at the regional, departmental, and subprefectoral levels; deconcentrated line ministries; communities; the private sector; and traditional authorities.

d) Testing the above training, communication, and policies in 10 *communes* in the 16 *départements* to be covered by the first phase of the PROADEL by assessing the level of development and capacities in these 10 communes and (ii) strengthening local capacities within these communes through training and purchase of equipment.

e) Providing equipment, training, and technical advisory services to staff at the central and departmental levels of the Ministry of Land Management, Urbanism, and Habitat.

GEF Activities

Capacity building activities will thrust at improving the skills and enforcement powers of agents in the Ministry of Environment and Water, particularly those working at local and decentralized levels. Mechanisms to build this capacity shall include, *inter alia*, specialized training and workshops and logistical support.

Subcomponent 3.3.: Support to the Land tenure definition

The project would improve the land tenure system in Chad by (i) creating a reliable data base on land tenure in Chad (operators, existing data), (ii) defining new curricula and research programs on land tenure, (iii) collecting data needed for PROADEL's activities, and (iv) providing equipment to support the Observatoire Foncier du Tchad(OFT). Three pilot Cellules d'Observation Fonciere(COF) would be created in the three regions of Mandoul, Tandjile, and Logone Occidental to help create the sociological and geographic data base on existing land tenure systems, to assist the government in the design of the new Code Foncier (Land Tenure Code) (French Cooperation is providing assistance for its elaboration).

Cost and financing:

IDA Credit will finance the subcomponent 3.1. to support the finalization of the regulatory framework of decentralization. Subcomponent 3.2. will be financed as follows: (i) an IDA grant would support activities aimed at strengthening decentralized authorities, as soon as elected; the IDA grant would then support activities 3.2a), c), and d), and (ii) the IDA credit would finance activities 3.2b and e. Support for detailing the land tenure system (Subcomponent 3.3) would be financed by an IDA credit.

Project Component 4 - US\$8.31 million

Of which IDA Credit: US \$ 4.9 million

Management and information support

Objective

The management and information support component would support project coordination, evaluation, and monitoring, through two subcomponents: (i) project management and (ii) program monitoring and evaluation.

Subcomponent 4.1.: Support to project management

Day-to-day management of project activities would be assigned to a Project Management Unit (PMU) established within the Ministry of Land Management, Urbanism, and Habitat and located in N'Djamena. It would consist of a small team comprising a coordinator proficient in managing development projects, a technical team (capacity building specialist, monitoring and evaluation specialist, environmental and social specialist, communication

specialist, decentralization specialist), and an operational team (financial specialist, accountant, procurement specialist). The CPCU's responsibilities would be to (i) coordinate overall implementation of the project, (ii) manage project activities implemented at the central level, (iii) ensure the availability of funds, (iv) maintain the books and the accounts of project activities and produce financial reports, (v) monitor and evaluate implementation of the work program and its impact, (vi) report results to stakeholders (administration, donors, civil society, projects, Decision Committees), and (vii) provide technical assistance to IRPCUs. The CPCU would work closely with ASPOP's Central Project Coordination and Management Unit (CPCMU). Most of the activities would be subcontracted by the CPCU in accordance with PROADEL procurement arrangements. Household energy activities would be single source contracted and the Agence pour l'Energie Domestique et l'Environnement (AEDE) would be a good candidate, since it has been successfully implementing the World Bank Household Energy Project in Chad.

Three IRPCUs would be responsible for coordinating project activities within their territories. There would be three IRPCUs during the first phase, established in the same cities as ASPOP's Inter-Regional Project Coordination and Management Units and possibly in the same building, to improve communication and coordination. Each IRPCU would comprise an administrator, an environmental and social specialist, a monitoring and evaluation specialist, a procurement specialist, and an accountant. Instead of being directive, they would concentrate their efforts on support activities to local communities through regular consultation with local stakeholders. The IRPCUs would be responsible for (i) carrying out capacity-building activities at the local level, (ii) managing the funds to finance the subprojects, (iii) monitoring and evaluating project activities in their territories, and (iv) reporting to local stakeholders and to the CPCU.

The project would finance (i) technical advisory services and training to strengthen PROADEL's management entities (procurement, financial management, disbursement, monitoring and evaluation), (ii) the rehabilitation or construction of their office space, (iii) equipment and vehicles, and (iv) financial and technical audits.

Subcomponent 4.2.: Support to the project monitoring and evaluation

The project monitoring and evaluation subcomponent is designed to (i) ensure sound management of the project through daily technical and financial monitoring of its activities; (ii) enforce strategic, technical, and operational links between the project and sector strategies, other development programs and projects, and more generally all stakeholders (in particular the beneficiaries); and (iii) optimize management of all the information generated and used by the different CPCUs. Stakeholders at every level would be involved in gathering, processing, analyzing, storing, and disseminating the information required for transparent and efficient decision-making, as well as for sound financial and technical monitoring of activities. The subcomponent would rely on (i) a monitoring and evaluation system to follow financial and technical activities and (ii) a knowledge management system for decision makers.

GEF Activities

GEF financed activities will strengthen the environmental monitoring and evaluation capacities and complement the baseline Rural Sector Monitoring System. Building upon existing environmental and biodiversity data compiled in recent years under the NEAP and BSAP initiatives, under the Regional Environmental Information Management Program (REIMP), and in early 2004 with GEF PDF-B support, this component will: (i) expand the scope and coverage of environmental management information systems as they relate to the

priority target areas; (ii) refine the methodologies and tools used for monitoring and evaluating the progress of ecosystem improvements (including the creation of a national Geographic Information System (GIS) panel database and the acquisition of information from existing remote sensing inventories and archives); and (iii) delimit a set of quantitative indicators to benchmark improvements with respect to the project's global environmental objectives, (e.g., biodiversity conservation, retreat of desertification, and net carbon sequestration gains in drylands and agricultural soils). Such inventories, systems and methodologies are necessary to properly target interventions, better determine the underlying economic value of the country's natural assets, and track changes in national environmental quality in a more sustainable, scientifically rigorous manner. Stakeholder participation will be emphasized in these activities and communities will play a front-line role in ecosystem monitoring.

Technical assistance to local stakeholders will be provided by the Association for the Development of Information on the Environment. In addition, the environmental information system will be elaborated in conjunction with the development of the second phase of the Regional Environmental Information Management Program (REIMP), the first phase of which was supported by the GEF.

a. The Monitoring and Evaluation System

The monitoring and evaluation system of the project would be critical for managing the large volume of information in subproject cycle, monitoring the IRPCU and communities' performance, and aggregating information for evaluating the impact of the project. The management information system would be constructed with three modules. IRPCU would use a lighter version of the system containing all the information needed from the CPCU. IRPCUs would gather information from beneficiaries and stakeholders at the local level while ensuring continuous diffusion of lessons learned and best practices among beneficiaries, to help make participatory evaluation and steering of the project effective. The database would be synchronized each month between the departmental and central levels.

Accounting and financial monitoring. A consulting firm specializing in financial and accounting systems is being recruited to (i) finalize the project's financial and administrative procedures (personnel and goods management, accounting, and disbursement), (ii) develop the software and install it in the CPCU and IRPCUs, (iii) train the staff, and (iv) provide the CPCU with technical assistance for six months. Reports in accordance with the Financial Management Report format would be prepared three times a year. Once a year, an audit of the CPCU and the IRPCUs and a survey of a statistically representative number of beneficiaries would take place.

Activities monitoring and evaluation. A system is being developed to monitor and evaluate the performances and the impact of the project. This monitoring and evaluation system would provide information to (i) determine clear and realistic objectives for each activity, (ii) measure gaps with previsions and thus identify the problems linked to the activities realization, (iii) propose options and arrangements to address those issues, and (iv) better inform the stakeholders with periodic reports (terms of reference of stakeholders, activities advancement and problems encountered, chronogram of activities with responsibilities, financial status of the project, value of key impact and performance indicators, value of trigger indicators). The establishment of reports and control boards would imply interaction with the accounting and financial system to compare financial disbursement and commitment with physical advancement. Furthermore, monitoring and evaluation of the activities financed under the first component (subprojects) would benefit from specific tools and procedures.

Once a year, a census would be conducted on a statistically representative sample of beneficiaries to assess the impact of the project. A study would be conducted before project implementation to maximize synergies among programs and institutions in Chad regarding monitoring of poverty and local community development, especially to ensure operational links with PRSP monitoring and the rural sector monitoring and evaluation system. Data from those surveys and monitoring systems would be used for the project impact evaluation.

Development operations and process monitoring. This module would be based on a Geographical Information System that would help monitor: (i) existing or planned infrastructures, services, and development operations in the concerned departments, (ii) sector policies, and (iii) the progression of the geographical scope of the project according to various phases pre-established (ranging from "nothing happened" to "community fully empowered, with a strong involvement of local governments"). This tool would be used to update the Departmental Development Frameworks. This Geographical Information System would use scanned maps from CNAR archives or satellite-rectified photographs as background to display the following layers:

- Existing or planned infrastructures: schools, health centers, water wells, markets, slaughterhouses and veterinary services, drainage facilities, socioeducational animation centers, roads, village stores, village territory with natural wood resource management, newly established wood plantations or otherwise reforested areas.

- Development operations under way for which are to be specified: objectives, sectors and themes, budget, effectiveness and closing dates, financing sources, and contacts.

- Geographic scope of the program evaluating the progress accomplished along a pre-defined process scale for a given area.

National strategies and policies for poverty reduction, rural development, water management, health, education, transport, and urbanism would also be monitored with this module, but without geographical interface. This system, to be successfully implemented and used, would possess numerous links with other monitoring systems (sector monitoring or development programs monitoring) and especially with the ones linked to rural sector monitoring.

b. Beneficiaries assessments

Light beneficiaries assessments would be conducted yearly and a more complete one at the end of the first phase. The PROADEL would also continually look at participatory appraisal reports showing community satisfaction with PROADEL and subproject implementation. Global impact information would come from the Poverty Monitoring System, and the ECOSIT family income survey to be completed by the middle of 2003 would bring the baseline.

c. Knowledge management in the project

The local dimension of the project highlights the necessity of sound knowledge management procedures during implementation. This activity would ensure efficient information circulation between the different stakeholders involved in the project. By "information" one must understand every single hard or electronic copy of (i) accounting and financial reports, (ii) technical status reports and all related documents (such as financing request forms), (iii) contacts list, (iv) communication supports (such as brochures and flyers), (v) Departmental Development Framework (see Development Operations and Process monitoring), and (vi) technical support documents and publications (such as books, studies, and maps). Therefore, a simple implementation manual describing the knowledge management procedures would be

written before project effectiveness. This activity includes the elaboration and maintenance of a Web site that would include various functionalities depending on the targeted audience:

- (a) General public: with an overview of the rural sector in Chad and a presentation of the project and its performances.
- (b) Project financial partners: technical and financial status reports would be available, with a direct link to project performance and impact indicators.
- (c) Project technical partners: this part would provide experience-sharing tools for international and national experts interested in the technical aspects of the project. It would contain: (i) a repertory of technical documents by sectors (strategies, studies), (ii) a chat room, and (iii) a calendar of project implementation events (studies launching, planning and validation workshops, etc.). This last part can be used to improve project activity procurement.

The following matrix presents the three modules of the Monitoring and Evaluation system:

	Accounting and financial monitoring	Activities monitoring and evaluation	Development operations and process monitoring
Systems operators	<ul style="list-style-type: none"> • <i>Central level:</i> (i) financial and administrative officials, (ii) accountant, and (iii) procurement specialist • <i>Departmental level:</i> accountant and procurement specialist (one per department) 	<ul style="list-style-type: none"> • <i>Central level:</i> monitoring-evaluation official • <i>Departmental level:</i> monitoring-evaluation official (one per department) 	<ul style="list-style-type: none"> • <i>Central level:</i> monitoring-evaluation official • <i>Departmental level:</i> monitoring-evaluation official (one per department)
Other stakeholders	<ul style="list-style-type: none"> • Project beneficiaries • Comite d'Orientation et de Pilotage • Donors 	<ul style="list-style-type: none"> • Project beneficiaries • Donors • Project participants 	<ul style="list-style-type: none"> • Decision Committees • Other development projects in Chad • PRS unit
Type of managed data	<p><i>Financial and accounting data:</i></p> <ul style="list-style-type: none"> • Disbursement • Commitments • Budget <p><i>Contract monitoring:</i></p> <ul style="list-style-type: none"> • Contract • Procurement <p><i>Human Resources management:</i></p> <ul style="list-style-type: none"> • Project staff evaluation 	<ul style="list-style-type: none"> • Activity advancement • Performance and impact indicators evolution • Triggers indicators evolution 	<ul style="list-style-type: none"> • Project advancement in terms of spatial coverage (progress between the different communities development phases) • Development operations under way and complementary to the program (including program-planned activities) • Basic existing

			infrastructures (including those of the project) <ul style="list-style-type: none"> • Sector policies
Reports	<ul style="list-style-type: none"> • Quarterly financial management report 	<ul style="list-style-type: none"> • Monthly reports presenting the participants Terms of References • Quarterly reports presenting activities advancement • Bi-annual report presenting a complete stocktaking on the Program 	<ul style="list-style-type: none"> • Departmental Development Framework (once every two years) • Quarterly reports presenting the progress of the Program spatial coverage
Procedures	<ul style="list-style-type: none"> • Three Special Accounts (one for subprojects financing) • Simple procedures for replenishment between CPCU and IRPCU • Direct contracting between beneficiaries and providers 	<ul style="list-style-type: none"> • Annual planning • Technical advancement review after each payment • Participatory evaluation once a year at the same time as a poverty survey on a statistical sample. 	<ul style="list-style-type: none"> • Departmental data integration to the GIS for any new department • Annual update of the system after meeting with other projects and institutions • Systematic integration of PROADEL realization to the system
Tools	<ul style="list-style-type: none"> • Financial monitoring software adapted to the program specificities 	<ul style="list-style-type: none"> • Monitoring and evaluation tool adapted to the program specificities and with a special module for subprojects monitoring • Control boards to monitor global and triggers indicators. 	<ul style="list-style-type: none"> • GIS

Annex 3: Estimated Project Costs

CHAD: Local Development Program Support Project

	Local	Foreign	Total
Project Cost By Component	US \$million	US \$million	US \$million
Local Development Fund (matching grants for sub-projects)			16.40
Capacity Building for local development stakeholders			20.61
Support to the Decentralization Process			6.29
Management and Information Support			8.95
Total Baseline Cost			52.25
Physical Contingencies	0.00	0.00	0.00
Price Contingencies		0.00	0.00
Total Project Costs¹			52.25
Total Financing Required			52.25

	Local	Foreign	Total
Project Cost By Category	US \$million	US \$million	US \$million
Civil works for offices rehabilitation or Construction	0.68	0.00	0.68
Vehicles, Equipment and Materials	1.04	1.39	2.43
Services, Audits and Studies	17.68	4.31	21.99
Training	1.35	0.00	1.35
Grants for sub-projects	13.95	0.00	13.95
Operating Costs	4.04	0.00	4.04
PPF	0.78	0.78	1.56
PDF-B	0.13	0.12	0.25
Total Project Costs¹			52.25
Total Financing Required			52.25

¹ Identifiable taxes and duties are 2.8 (US\$m) and the total project cost, net of taxes, is 43.2 (US\$m). Therefore, the project cost sharing ratio is 53.24% of total project cost net of taxes.

Annex 4: Incremental Cost Analysis

Chad Integrated Ecosystem Management Program

Context

This annex elaborates upon aspects of the PAD that relate to GEF incremental activities.

Chad's national and rural development priorities strongly emphasize an imperative to ensure for the long-term health and productivity of the country's natural resource base. The Government of Chad recognizes that this goal is more likely to be achieved through direct participation of local communities in the monitoring and management of ecological processes at larger geographical scales, as well as through micro-investments that can generate broad, multiple benefits to diverse stakeholders. To illustrate this commitment, the key environmental strategies recently elaborated by the Government recognize that in order for conservation and environmental protection efforts to be sustainable, rights and responsibilities over land and other natural resources must be devolved to the lowest appropriate level.

While the value of an integrated ecosystem management approach to address Chad's key environmental threats is recognized, a number of barriers have precluded the ability to translate this strategic vision into action. These barriers include:

- **Limited funding mechanisms for integrated ecosystem management.** In Chad, no rural financing mechanism to afford communities and opportunity to undertake micro-activities whose agglomeration could quickly achieve a positive global environmental impact currently exists. The few past community-driven development programs have either been limited in geographical scope, or did not directly address environmental issues. Until now, it has been impossible to implement a bottom-up national integrated ecosystem management program.
- **Lack of technical knowledge and capacity of local communities.** While climatic and demographic factors are among the root causes of desertification and biodiversity loss, lack of appropriate natural resources management skills confounds the situation and is most immediately open to improvement. Available techniques for reducing soil erosion, improving soil fertility, and increasing woody biomass could be used widely given adequate support for capacity building. Such techniques would also have a positive impact on reducing carbon emissions and promoting carbon sequestration.
- **Weaknesses in the legal framework and capacity for decentralized environmental governance.** The range of environmental challenges impeding Chad's sustainable economic development are intimately connected to weak local governance structures, particularly in the domain of natural resources management. Decentralized mechanisms are important, as national capacity to manage protected areas and larger ecosystems is very limited. Indeed, fewer than 500 agents in the Ministry of Environment and Water are charged with environmental and/or water management in the entire country, and budgetary constraints are severe. Weak decentralized natural resources management capacity in poverty-stricken areas aggravates existing human migration pressures that can be destabilizing. Weak decentralized environmental governance has contributed to a rise in conflict over land use, particularly between demand for agricultural activities and existing wildlife and protected areas.
- **Limited analytical and information basis for long-term monitoring of environmental issues and targeting.** Lack of sound information on the environment constitutes a real constraint. Only basic data on protected areas is available, while wildlife censuses are often

more than 25 years old. No ongoing scientific observation of desertification is taking place, and most decisions and interventions are made on limited local and often biased information, leading to poor resource rationalization.

- **Need to contextualize interventions in the context of rural poverty reduction.** The transition to the oil era should bring major revenues to the national economy. As the underlying basis and outlook for economic growth in Chad continues to improve, it has become increasingly critical that conservation issues and sound natural resource use frameworks be integrated more effectively into local development planning. Adopting these frameworks at an early stage of economic development may be pivotal to precluding irreversible environmental damage, such as soil erosion and groundwater degradation. The interconnected mix of environmental and socio-economic threats to the preservation of Chad's globally significant environmental assets demands holistic approaches that can balance the ecological, economic, social, and financial needs of communities and the imperative of poverty reduction. These approaches have heretofore been limited or lacking.

Project Overview

This four-year GEF funded project, to be implemented in parallel with the first phase of the Local Development Support Program Project (PROADEL), has been conceived to remove the financial, institutional, and knowledge barriers to achieving the Government's strategic vision for environmentally sustainable rural development. The project has four components: financial support to local development subprojects, capacity-building for communities, support for decentralization, and management and information support.

In line with the strategic priorities of the GEF operational program #12, the global environmental objective of the GEF alternative project is to promote community-based integrated ecosystem management of targeted fragile ecosystems in the framework of sustainable rural development in Chad, thus combating desertification and preserving biodiversity while fostering multiple global environmental benefits. The activities thus aim to better enable local communities to combat desertification, preserve biodiversity, and maintain the productivity of their natural assets through the introduction of community-driven, integrated environmental management principles and planning.

In this sense, the incremental cost can be weighed against the following potential global environmental benefits:

- Integration of integrated ecosystem management principles and planning tools in majority of Chadian local development plans
- Restoration, protection, and conservation of globally-significant ecosystems and habitats and key biodiversity therein
- Marked retardation of desertification
- Reduction in national net greenhouse gas emissions, mainly through increased carbon sequestration in soils and biomass
- Benefits from global biodiversity use more equitably shared and indigenous knowledge incorporated into global environmental conservation efforts
- Globally replicable lessons in community driven ecosystem management gained through participatory monitoring and more durable environmental information management systems

Successful implementation of the project will bolster GEF's overarching priorities as outlined in the GEF Council's Strategic Business Plan, while simultaneously advancing poverty reduction. The global operational strategy of the project is aligned to support the aims and targets of the

GEF's OP Objective #12. Interventions will address multiple GEF focal areas, prioritizing biodiversity conservation and sustainable land management, while promoting (and introducing, in many cases) holistic and cross-sectoral approaches to environmental management.

Baseline Scenario

The incremental cost for technical assistance, investments, and capacity building associated with the project objectives are identified by comparing the baseline scenario and the GEF alternative scenarios. At the simplest level of analysis, the baseline scenario represents the likely impacts that would result from the timely and steady implementation of the Government's Rural Development Support Plan (PIDR) and the outcomes associated with its interventions in the rural sphere. This is particularly the case for interventions that are directly or indirectly intended to enhance natural resource management. The baseline can therefore be constructed by examining the intended impacts of implementing the Local Development Program Support Project (PROADEL), the Agricultural Services and Producers Organizations Project (ASPOP), and PRODALKA, a GTZ/KfW/DED financed project focused on natural resource management.

The PIDR is a framework for a number of complementary programs and projects aimed at fulfilling the Government's objectives in the agricultural and rural development sectors. The objective of the PIDR is to achieve the goals outlined in the rural development strategy: (i) sustainable growth of agricultural production; (ii) protection of biodiversity and sustainable ecosystem management; and (iii) reinforced human capacity in the rural sector. These objectives are shared among these three operations of the PIDR. Underneath this umbrella, the two largest projects are PROADEL and ASPOP.

The commonality between these operations, beyond their focus on rural development, lies in the fact that they place communities in the driving seat. They also emphasize the need for capacity building for both the beneficiaries (in order to better identify, plan, and prioritize interventions) and for decentralized agents (in order to improve regulatory and enforcement powers). Indeed, almost all of the relevant governmental strategies and plans (i.e. rural development strategy, biodiversity strategy and action plan, national environmental action plan) promote strong involvement of communities in natural resource management. Likewise, new decentralization laws attribute a major role in the management of renewable resources to rural communities. They also give the communities the opportunity to group themselves around specific issues and to elaborate intercommunity agreements called Charta.

All these operations, even if focusing on non environmental issues, like rural infrastructure and agricultural techniques, will potentially have a strong impact on the environment, depending on (i) what part of the funds will be dedicated to environmental subprojects, (ii) the way environmental concerns are integrated into the elaboration of local development funds, and (iii) how much local capacity in environmental management is built.

PROADEL

The Local Development Program is a three four year-phases program using an Adaptable Program Lending. The Local Development Program Support Project (PROADEL) is the first phase of the program and will assist the Government of Chad in designing and implementing a decentralized and participatory financing mechanism that aims at empowering rural communities and decentralized institutions to manage development funds in a transparent way and according to their own priorities, eventually contributing to the decentralization agenda. The project is expected to start in beginning of FY05. The project would progressively cover 19 departments in

Chad, building on previous community development pilot initiatives. The project will initiate and test, in a limited number of areas, the community-based approach while helping the Government develop a coherent regulatory framework for the decentralization process and a master plan for its implementation. The project will also pilot activities on current natural resources management strategic issues (particularly land tenure, pastoralism and water) in order to identify solutions to be implemented in the subsequent phases.

PROADEL has four components:

(i) Financial support for eligible socio-economical initiated by local communities to local development subprojects. The project would provide matching grants to co-finance subprojects proposed by community-based organizations or decentralized local government entities. Eligible activities are likely to include:

- Small social activities such as transport (bridges), education (classrooms), health (health posts, HIV/AIDS prevention and information, personnel training), and water and sanitation (wells).
- Management of natural resources activities such as erosion control, tree nurseries, forests management, and alternatives to fuelwood.
- Large-scale and more expensive collective infrastructure projects that would affect several villages or cantons, such as drilling, rural roads, and water supply systems. Such projects might be submitted by communes and would be eligible for a PROADEL IDA grant if they could not be financed through a relevant sectoral project.

(ii) Capacity building of local development stakeholders for communities. The project would strengthen the technical and organizational capacity at the community level for participatory approaches, needs assessments, subproject management and implementation. It would support them in the preparation of development plans and subprojects requests.

(iii) Support for decentralization process. The project would support the Government in completing the legal and regulatory frameworks of the decentralization, strengthening capacities of all key stakeholders of the decentralization process at the national, regional and local levels, and improving the land tenure system; and

(iv) Project Management and M&E of program activities and impact. The project would support project coordination and project monitoring and evaluation.

ASPOP

ASPOP is a four year, IDA-financed project with progressive national coverage expected to start in May 2004. The objective of the Agricultural Services and Producer Organizations Project is to increase rural income and reduce poverty in rural areas, while preserving the natural resource base. ASPOP has the following three components: (i) promotion of sustainable growth in agricultural production, (ii) capacity building for agricultural services, and (iii) support to project management.

Five sub-components of ASPOP are particularly germane in terms of their potential impact on Chad's ecosystems and the realization of global environmental benefits.

(1) Productive infrastructure . Under ASPOP component 1(a) , a number of investments in productive infrastructure at a cost of US \$5 Million will be made in the agricultural sector, following a demand-driven approach based on the interests articulated by producers

organizations. Many of these are likely to have a material impact on local ecosystem quality. These investments include: (i) construction and management of small-scale water management schemes, such as hydro-agricultural retention pools, small ponds, hillside water retention structures, pastoral wells, small irrigation and drainage work, and small dams, (ii) soil and water resources conservation infrastructure comprising relevant water resource management facilities that would allow the channeling of surface and underground water for agricultural and livestock purposes; (iii) establishment of small store systems and rural veterinary facilities that would particularly address vaccination needs; and (iv) targeted studies.

(2) Agricultural development. Also under ASPOP component 1(a), capacity building investments primarily targeting the cotton sub-sector will also help to improve the environmental sustainability of cultivation practices. These activities will include (i) improvement of existing farming systems and development of conservation farming techniques to preserve soil fertility (no tillage) and improve the environment in areas of alley cropping, contour ridge terracing, cover crops, and living fences; (ii) demand-driven extension and training activities not necessarily linked to the above productive infrastructures subprojects (such as diversification of agricultural and livestock production, processing and marketing of farm products, and establishment of seed and plant nurseries and promotion of domestic and export agriculture, including the search for domestic and international markets for prominent crops such as cereals, fruits and vegetables; animal and animal products such as meat, milk, fish, poultry and small ruminants; other marketable products such as shea nuts, cashew, arabic gum, sesame and spirulina. These investments are associated with a cost of US\$4.65 million.

(3) Capacity building of producers organizations, including cotton producers organizations. Activities to be financed under this subcomponent would include: *technical advisory services provided by a variety of rural service providers* to identify, prepare, and support implementation of productive investment subprojects and manage Producer Services and Management Centers (PSMCs); *training, workshops, and study tours* to enhance the ability of producer organizations and their representative organizations (including the local coordination committees for the cotton subsector) to promote participatory approaches and the development of basic accounting and procurement methods and to foster producer organization representation in state and regional steering committees comprising representatives of producer organizations, NGOs, donor organizations, and the private and public sectors; and *collection and dissemination of technology and economic information to producer organizations*.

(4) Public service development. Under ASPOP component 2(d), the capacities of public service at the national and subnational levels in the technical ministries linked directly to rural development (Ministry of Agriculture, Ministry of Livestock, and Ministry of Environment and Water); will be strengthened. A thematic research program on rural development will also be supported. Specifically, the project would provide technical assistance, training, and equipment to the technical ministries to: (i) improve the quality of the budgetary and financial management in the preparation and implementation of rural investment programs; (ii) to strengthen the capability of the environmental management unit of the Ministry of Environment and Water to monitor implementation of the proposed mitigation measures for potential negative impacts of productive investments on natural resources in the agricultural sector; (iii) to strengthening the technical and institutional capacities of research institutions in the Ministry of Agriculture and the Ministry of Livestock to implement thematic research activities. These activities aim to find solutions for long-term

constraints to the intensification, diversification and sustainability of the agricultural production systems. Such programs may finance studies on agricultural research activities identified as priorities by the Government, producer organizations, and the private sector.

(5) Project management and monitoring systems. This component will increase the monitoring and evaluation capacity of projects and programs in the rural development sphere significantly. Besides being responsible for monitoring project-related activities and carrying out impact studies, the project would support the sector monitoring and evaluation system, that is, the general monitoring and evaluation by a permanent unit of developments of impacts on agriculture and relevant rural development activities. The sector monitoring and evaluation system aims, in particular, at evaluating implementations of the Rural Development Support Plan and its effect on poverty.

PRODALKA

The Rural Development Program of Mayo-Dallah, Lac Léré and Kabia (PRODALKA), a four year GTZ/KfW/DED-financed project, commenced in August 2004. The program is a follow-on to PCGRN activities. The objective of the program is to reduce poverty and improve the livelihood conditions of rural population. PRODALKA has the following components:

- (i) Rural development sector coordination. The project will support the Government in coordinating all rural development activities in Chad.
- (ii) Financial support to rural development investments. The project will provide matching grants to co-finance community infrastructures.
- (iii) Decentralization and local planning. The project will support the decentralization process through (i) capacity building of decentralized authorities, (ii) outreach campaigns on decentralization and (iii) trainings of decentralized ministries. It would also support communities in participatory local planning.
- (iv) Support to sustainable agriculture. The project will support the promotion of innovative agricultural techniques to reduce soil degradation and loss of fertility. It would especially focus on techniques adapted to local ecological conditions.
- (v) Community natural resources management. The project will support strengthening capacity of all local stakeholders in sustainable management of natural resources, at the village level and also at the inter-village level for protected areas management.

GEF alternative description

The GEF alternative comprises the package of incremental activities that will be enabled with the addition of US \$6 Million to the IDA-financed PROADEL. Integration of GEF activities will improve the design of PRAODEL, ASPOP, and GtZ-Financed PRODALKA components, while serving as an umbrella framework under which a range of interventions and collaborations can be coordinated, advancing the Government's key strategies and realizing global environmental benefits. GEF incremental activities will help restore and sustain Chad's major ecosystems through all of its sub-components, in particular the co-financing of strategic subprojects and targeted training to improve the management of protected areas. By increasing local management capacity, the GEF alternative will contribute to the strategic priorities under the biodiversity focal area, stabilizing fragile ecosystems and preserving biodiversity through catalyzing community participation in the management and monitoring of projects in indigenous areas. The GEF alternative will also focus on the conservation of key ecosystems likely to maximize

environmental benefits and on the improvement of plans for the integrated management of renewable natural resources within those rural communities. Through activities geared towards stabilizing and increase the production capacity of agricultural areas, the project will also strengthen the baseline poverty-reduction and vulnerability-reducing activities.

Component 1 – Financial Support for Local Development Suprojects

A financial support would be established to co-finance subprojects holding promise to make a positive impact on the global environment and related integrated ecosystem management activities at the local level. The project would finance a percentage of the contribution requested from the beneficiaries (cash, materials or wages for labor) representing between 5 and 50 percent of total subproject costs. A final “positive list” of specific eligible activities will be established according to GEF principles during project preparation; however, in all cases eligibility will be restricted to those subprojects proposed in Local Development Plans and that concern or affect priority zones. Finally, activities must be “incremental” investments having a medium or long-term economic return and manifesting barriers to their immediate implementation. Some of the subprojects likely to be eligible under GEF incremental activities include, inter alia, the reforestation and rehabilitation of gallery forests and the establishment of on-farm or communal windbreaks to prevent dune advancement, community co-management of protected areas, the introduction of direct seeding and other agro-forestry techniques designed to increase soil fertility and soil organic carbon retention and reduce land degradation, and the development of more sustainable, alternative energy carriers to fuel wood and traditionally produced charcoal. The project would also support the development of local drought management plans and bushfire awareness programs.

Component 2 –Capacity Building for Communities

The activities under this component comprise the provision of technical assistance and capacity building support services to local communities and decision committees that can facilitate the practical integration of environmental concerns and integrated ecosystem management principles into local development planning. Specific training and organizational support will build community skills in: (i) the design and implementation of natural resources management strategies within an integrated ecosystem management framework; and (ii) specific strategies and modalities to effectively co-manage protected areas with government officials. These activities run in parallel to the first component, such that the conceptualization of subprojects (i.e. those aimed at reducing soil erosion, maintaining forest cover, and restoring woody vegetation) can coherently address broader ecosystem challenges, including sub-regional watershed management.

The main tool to foster IEM will be to integrate the relevant elements of an IEM guideline document into the elaboration and implementation of Local Development Plans, while addressing some critical ecosystems on a more holistic approach. An “IEM Guideline Document” (which is being prepared with GEF PDF-B support), will be disseminated at an early stage of the project. This will finalize the criteria and “positive list” for subprojects that are eligible for co-financing under the program. The document will also serve as a blueprint for how to consolidate IEM approaches in local development planning under the framework of the PIDR. Under a “train the trainers” model, the document will be used for capacity-building purposes to increase the skills and knowledge base of decentralized Ministry of Water and Environment agents and local NGO service providers. In addition, under this component, selected communities will be supported to conduct participatory needs assessments in alignment with “gestion de terroirs” and community based natural resources management principles. In addition to these primary tools, a systematic review of protected areas will be undertaken and assessments will be taken to identify new priority intervention zones. Facilitation assistance will be extended to selected communities to

help co-manage protected areas, including strengthening management plans for Binder-Léré Wildlife Reserve and the Lake Fitri Biosphere Reserve. These activities will incorporate indigenous knowledge and participation of community leaders. In addition, scientific and technical capacity will be built in biosphere reserve management, and targeted support will be given to Chadian stakeholders in savannah and drylands management under a future UNEP/GEF regional initiative on Dryland Biodiversity in West African Biosphere Reserves.

Component 3 – Support for Decentralization

GEF incremental funding will advance the Government of Chad's decentralization agenda, by strengthening national capacity for decentralized environmental governance. Interventions under this component will target the finalization and implementation of sound regulatory frameworks and workable modalities for community involvement or joint environmental management. This may involve modifications to the legal framework and targeted assistance to communities to work with the Ministry of Environment and Water to adopt local regulations for joint management of protected areas. Capacity building activities will thrust at improving the skills and enforcement powers of agents in the Ministry of Environment and Water, particularly those working at local and decentralized levels. Mechanisms to build this capacity shall include, inter alia, specialized training and workshops, logistical support, and the provision of constructive equipment.

Component 4 – Information and Management Support

GEF financed activities designed to strengthen environmental monitoring and evaluation capacities will complement the baseline Rural Sector Monitoring System being established under the PIDR framework. Building upon existing environmental and biodiversity data compiled in recent years under the NEAP and BSAP initiatives, under the Regional Environmental Information Management Program (REIMP), and in early 2004 under GEF PDF-B support, this component will: (i) expand the scope and national coverage of environmental management information systems; (ii) refine the methodologies and tools used for monitoring and evaluating the progress of ecosystem improvements (including the creation of a national Geographic Information System (GIS) panel database; and (iii) delimit a set of quantitative indicators to benchmark improvements with respect to the project's global environmental objectives, (e.g., biodiversity conservation, the retreat of desertification advances, and net carbon sequestration gains in drylands and agricultural soils). Such inventories, systems and methodologies are necessary to properly target interventions, better determine the underlying economic value of the country's natural assets, and track changes to national environmental quality in a more sustainable and scientifically rigorous manner. Technical assistance to local stakeholders will be provided by the Association for the Development of Information on the Environment. In addition, the environmental information system will be elaborated in conjunction with the development of the second phase of the Regional Environmental Information Management Program (REIMP), the first phase of which was supported by the GEF. A financial audit would be conducted for each fiscal year by an auditor and a technical evaluation of the project would be conducted by an independent consulting firm at the end of the project to assess its results, its strengths and weaknesses and give some guidance on replicability and for the design of the second phase.

The incremental global environmental benefits of the proposed GEF alternative include:

- Integration of integrated ecosystem management principles and planning tools in majority of Chadian local development plans
- Restoration, protection, and conservation of globally-significant ecosystems and habitats and key biodiversity therein
- Marked retardation of desertification

- Reduction in national net greenhouse gas emissions, mainly through increased carbon sequestration in soils and biomass
- Benefits from global biodiversity use more equitably shared and indigenous knowledge incorporated into global environmental conservation efforts
- Globally replicable lessons in community driven ecosystem management gained through participatory monitoring and more durable environmental information management systems

The following table presents how the Baseline scenario and the GEF alternative address the major threats as defined in paragraph 12:

Actions to mitigate threats by addressing their causes

Major causes	Linkages with development issues	PIDR Baseline	GEF Alternative
Threat 1: land degradation and desertification (includes erosion, degradation of surface and groundwater resources, loss of biomass, declining soil fertility)			
<p>No integrated ecosystem management approach</p> <p>Use of inappropriate farming techniques (slash and burn agriculture, bushfires, short fallow period):</p>	<ul style="list-style-type: none"> • Low levels of government support (insufficient technical support) I, L • Lack of access to farm equipment and credit T • Cotton monoculture T • Low levels of private investment I • Socio-cultural factors (land tenure, gender), conflicts between traditional and modern authorities S, L • Lack of rural infrastructure I • Declining agricultural yields T • Weak producer organizations T, I • High illiteracy and low levels of education T, S • Weak decentralization L • Migration of populations in search of employment and/or displaced by political instability S 	<p>ASPOP:</p> <ul style="list-style-type: none"> • dissemination of new agricultural techniques and systems that are sustainable and environment-friendly and that can improve yields on a sustainable basis • support for strengthening the capacity of producer organizations and improving the environment for the private sector • training and capacity building programs for local governments and communities <p>PROADEL</p> <ul style="list-style-type: none"> • construction of rural infrastructures (roads, wells, etc...) • construction of schools • support to decentralization • revision of land tenure laws 	<ul style="list-style-type: none"> • Integration of global and IEM concerns in the revision of the land tenure regulation • Targeted grants to trigger off the use of new environmentally friendly agricultural techniques that could seem to have lower yields in the first time • Capacity building of MEE agents in the field in order to promote new techniques • Integration of environmental concerns in Local Development Plans
Intense rainfall and/or high winds	<ul style="list-style-type: none"> • Insufficient technical support T 	<ul style="list-style-type: none"> • Technical assistance 	<ul style="list-style-type: none"> • Financing of subprojects fighting erosion (wooden barriers...)

Overgrazing (poor transhumant routes management)	<ul style="list-style-type: none"> • Low levels of government support (insufficient technical support) I, L • Farmer/herder conflicts S • Land tenure framework insufficient S, L 	<p>ASPOP:</p> <ul style="list-style-type: none"> • dissemination of new techniques and systems that are sustainable and environment-friendly <p>PROADEL:</p> <ul style="list-style-type: none"> • Revision of land tenure laws 	<ul style="list-style-type: none"> • The IEM techniques into LDP will bring coherence between local communities in transhumant livestock management
Deforestation (fuel wood mostly)	<ul style="list-style-type: none"> • No alternative to wood energy proposed T 	<p>ASPOP / PROADEL</p> <ul style="list-style-type: none"> • Implementation of the recommendations of the Household Energy Project 	<ul style="list-style-type: none"> • Financing of projects proposing energy alternatives • Integration of this issue in LDP
Uncontrolled water extraction	<ul style="list-style-type: none"> • Land tenure framework S, L • Insignifiant technical support T • No control in the field I 	<p>ASPOP</p> <ul style="list-style-type: none"> • development of community capacity to regulate use of water and fish resources; promotion of agricultural techniques to reduce erosion and pollution by agrochemicals • training and capacity building programs for local governments and communities • Revision of land tenure laws 	<ul style="list-style-type: none"> • Capacity building of MEE agents in the field in order to promote new management techniques • Coherence between communities brought by the IEM approach

Note: issues are sorted in 4 categories: **T**: Technical (includes environmental) / **S**: Socio-Economical / **I**: Institutional / **L**: legal.

Major causes	Linkages with development issues	PIDR Baseline	GEF Alternative
Threat 2: loss of biodiversity (includes loss of natural habitats)			
Poaching	<ul style="list-style-type: none"> • Traditional food and hunting habits S • Conflict between PA staff and local communities S • Difficulties to enforce regulations I, L 		<ul style="list-style-type: none"> • Management plans for Protected Areas organized into a network • Revision of the law • Capacity building of MEE agents in the field • Promotion of alternatives to bush-meat (market development, etc.) • Subprojects for sensitization
Weak biodiversity management (PA often "paper parks")	<ul style="list-style-type: none"> • Low capacity of staff I • Lack of information on wildlife T 	<p>PCGRN, PROADEL</p> <ul style="list-style-type: none"> • Local development plans will integrate biodiversity conservation concerns 	<ul style="list-style-type: none"> • Support in priority to the buffer zones of PA and ecosystems of importance under critical threat • Manage relevant information • Capacity building of the MEE agents in the field • IEM approach

Conflicts wildlife with agriculture activities: no integrated approach	<ul style="list-style-type: none"> Overgrazing T Extensive agriculture S, T Low levels of government support (insufficient technical support) I, L Land tenure framework insufficient S, L 	<p>ASPOP:</p> <ul style="list-style-type: none"> dissemination of new techniques and systems that are sustainable and environment-friendly <p>PROADEL:</p> <ul style="list-style-type: none"> Revision of land tenure laws 	<ul style="list-style-type: none"> The IEM techniques into LDP will bring coherence between local communities in transhumant livestock management Financing of subprojects addressing this issue (transhumance corridors...)
Use of inappropriate fishing techniques	<ul style="list-style-type: none"> Low levels of government support (insufficient technical support) I, L Lack of access to equipment and credit T Weak producer organizations T, I High illiteracy and low levels of education T, S Weak decentralization L 	<p>ASPOP:</p> <ul style="list-style-type: none"> dissemination of new techniques and systems that are sustainable and environment-friendly support for strengthening the capacity of producer organizations and improving the environment for the private sector training and capacity building programs for local governments and communities <p>PROADEL</p> <ul style="list-style-type: none"> construction of schools support to decentralization 	<ul style="list-style-type: none"> Targeted grants to trigger off the use of new environmentally friendly techniques Capacity building of MEE agents in the field in order to promote new techniques Integration of global environmental concerns in Local Development Plans
Deforestation (fuel wood mostly)	<ul style="list-style-type: none"> No alternative to wood energy proposed T 	<p>ASPOP / PROADEL</p> <ul style="list-style-type: none"> Implementation of the recommendations of the Household Energy Project 	<ul style="list-style-type: none"> Financing of projects proposing energy alternatives Integration of this issue in LDP
Demographic pressure	<ul style="list-style-type: none"> Migration of populations in search of employment and/or displaced by political instability S Cultural features S 	<p>ASPOP / PROADEL</p> <ul style="list-style-type: none"> Nothing specific, but activities could be adapted to demographic changes (reallocation of funds, etc.) 	

Note: issues are sorted in 4 categories: **T**: Technical (includes environmental) / **S**: Socio-Economical / **I**: Institutional / **L**: legal.

Incremental Cost Calculations: The GEF component is \$ 6 M, of which \$2.4 M is for the financial support to local development subprojects, \$1.8 M is for capacity building in communities, \$1.2 M is for support for decentralization, and \$600K is for management and information support. Thus, the total incremental cost of the GEF activities is about 7.2% of the total costs of the baseline activities in the targeted areas under the PIDR. A detailed breakdown of these costs is provided below. A breakdown of the cost components by contributors and an estimate of GEF incremental costs by total cost is provided in Table 1.

TABLE 1: Incremental Cost Matrix

Project Component	IDA	Government of Chad	Beneficiaries	Bilateral (AFD/GfZ)	GEF	Total	GEF Incremental Percent of Total
1. Financial Support for Local Development Subprojects	10.12 (PROADEL) + 8.99 (ASPOP)	2.67 (PROADEL)	1.16 (PROADEL) +1.80 (ASPOP)	3.33 (GfZ)	2.45	30.47	7.8%
2. Capacity Building for Communities	4.48 (PROADEL)	8.25 (PROADEL)	0.50 (PROADEL)	5.45 (AFD) +3.33 (GfZ)	1.93	23.81	7.5%
3. Support for Decentralization	3.50 (PROADEL) + 2.62 (ASPOP)	1.56 (PROADEL) + 0.50 (ASPOP)		+3.33 (GfZ)	1.23	12.71	9.4%
4. Management and Information Support	4.90 (PROADEL) + 2.27 (ASPOP)	3.41 (PROADEL) + 1.06 (ASPOP)			0.64	12.24	4.9%
Total	36.88	17.45	3.46	15.44	6.25	79.23	7.5%

Units: USD \$ M

TABLE 2: Detailed Incremental Cost Matrix and Comparison of Baseline and GEF Alternative

Component	Incremental Cost*	Baseline Scenario (PIDR)	Alternative Scenario with GEF Activities	Incremental Domestic Benefit	Global Environmental Benefits Realized
<p>1. Financial Support for Local Development Subprojects</p>	<p>\$2.45 M</p>	<p>Implementation of micro-investments that support local economic development, including promotion of more sustainable farming techniques and basic infrastructure, but few projects directly related to natural resources management or which can effect measurable global environmental benefits</p> <ul style="list-style-type: none"> - PROADEL Component I - ASPOP Component I - PRODALKA 	<p>Implementation of a significant number of community based integrated ecosystem management subprojects that address socio-economic equity and growth constraints in tandem with local, national and global environmental problems</p>	<p>Additional poverty reduction gains through accelerated restoration and/or augmentation of latent natural resources productivity (e.g., soil fertility, fishery stocks, forest services)</p> <p>Pipeline of community conceived and vetted environmental subprojects primed for sustainable decentralized development funding under future oil revenue-sharing plans</p> <p>Land rehabilitation and renewed natural resource productivity engendered through wider uptake of sustainable agricultural practices and related technologies (e.g., direct seeding, agro-forestry investments, water harvesting)</p> <p>Forest rehabilitation and increased area under active reforestation</p>	<ul style="list-style-type: none"> • Integration of integrated ecosystem management principles and planning tools in majority of local development plans • Benefits from global biodiversity use more equitably shared and indigenous knowledge effectively incorporated into global environmental conservation efforts • Restoration, protection, and conservation of globally-significant ecosystems and habitats and key biodiversity therein

<p>2. Capacity Building for Communities</p>	<p>\$ 1.93 M</p>	<p>Support for local development planning including modest improvement in the capacity of communities to design and implement natural resources management activities that may regenerate natural resources in selected areas</p> <ul style="list-style-type: none"> - PROADEL Component II - GTZ Project in Mayo-Kebbi - ASPOP Component I(a) - LCB Fitri pilot activity (potential) 	<p>Capacity of local communities to incorporate natural resource management and broader IEM considerations into local and sub-regional planning significantly strengthened, leading to national, local, and global environmental benefits</p>	<p>A common or similar understanding of good practice in IEM principles and planning among majority of local communities in Chad achieved</p> <p>Integration of IEM issues and principles in the majority, rather than minority, of local development plans</p> <p>Significant improvement in the capacity of communities to design and plan natural resource management subprojects</p> <p>Key national and local stakeholders sensitized to the relationship between global environmental challenges and local development issues</p> <p>Better rationalization of fuel wood and charcoal alternatives</p>	<ul style="list-style-type: none"> • Marked retardation of desertification • Reduction in national net greenhouse gas emissions, mainly through increased carbon sequestration in soils and biomass and other sustainable land management innovations
<p>3. Support for Decentralization</p>	<p>\$1.23M</p>	<p>Strong institutional/legal framework for decentralized rural development, with modest gains in the capacity of local authorities to support natural resources management (mainly focused on more sustainable agricultural cultivation)</p> <ul style="list-style-type: none"> - PROADEL Component III 	<p>Decentralization laws reflect shared vision of community-driven natural resource management and capacity of Ministry of Energy and Water agents at decentralized levels to address and support IEM issues greatly strengthened</p>	<p>Framework in place for decentralized environmental governance</p> <p>Stronger enforcement power and capacity of Ministry of Water and Energy officials to uphold environmental regulations, particularly at local/regional level</p> <p>Vanguard of communities enabled to jointly-manage protected areas.</p>	<ul style="list-style-type: none"> • Globally replicable lessons in community driven ecosystem management learned through participatory monitoring and durable environmental information management systems

<p>4. Management and Information Support</p>	<p>\$ 0.64 M</p>	<p>A general public awareness-raising campaign and a broad-based, participatory rural development monitoring system development, which would also include additional data on state of the environment, thereby facilitating marginal global environmental benefits</p> <ul style="list-style-type: none"> - PROADEL Component IV - ASPOP Component III 	<p>Development of shared environmental management information systems with broad scope and national coverage, through the promotion of participatory monitoring methodologies, GIS mapping, and information coordination and exchange among key stakeholders</p>	<p>Durable and commonly shared tools and systems for monitoring, evaluating, and targeting of environmental/IEM interventions established</p> <p>Common guidelines set for data collection, analysis, and exchange between communities, local government, civil society, and project management</p> <p>Better understanding of the linkages between poverty, land degradation, and natural resource management in the Chadian context</p>	
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* The incremental cost reflects the difference between the GEF alternative cost and the baseline project cost . For more detailed cost break-downs by project component, see Table 1 .

Annex 5: Financial Summary

CHAD: Local Development Program Support Project

Years Ending

IMPLEMENTATION PERIOD

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Total Financing Required							
Project Costs							
Investment Costs	8.3	8.1	11.5	14.0	0.0	0.0	0.0
Recurrent Costs	0.8	1.0	1.1	1.2	0.0	0.0	0.0
Total Project Costs	9.1	9.1	12.6	15.2	0.0	0.0	0.0
Total Financing	9.1	9.1	12.6	15.2	0.0	0.0	0.0
Financing							
IBRD/IDA	4.6	4.0	6.4	8.0	0.0	0.0	0.0
Government	3.5	4.0	4.0	4.5	0.0	0.0	0.0
Central	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provincial	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Co-financiers	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Beneficiaries	0.2	0.2	0.4	0.7	0.0	0.0	0.0
AFD	0.8	0.9	1.8	2.0	0.0	0.0	0.0
Total Project Financing	9.1	9.1	12.6	15.2	0.0	0.0	0.0

Main assumptions:

Annex 6: Documents in the Project File*

CHAD: Local Development Program Support Project

A. Project Implementation Plan

Manuel d'exécution du PROADEL (september 2002)

B. Bank Staff Assessments

« Aide-mémoire de la mission de pré-identification du PIDR » (May 2000) ;
« Aide-mémoire de la mission d'identification du PIDR » (March 2001) ;
« Aide-mémoire de la mission de pré-évaluation du PROADEL » (February 2002) ;
« Aide-mémoire de la mission d'évaluation du PROADEL » (December 2002) ;
« Aide-mémoire de la mission de Diagnostic sur la mise en œuvre de la Politique de Décentralisation au Tchad » (Moudoud, August 2001) ;
« Rapport de mission : PRODEL-PTMR, composante pistes rurales » (Thiam, January 2002)
BTOR – Review of Rural Water and Sanitation Sector in Chad (Prévost, March 2002)
« Analyse économique » (Tokindang, April 2002)
Peer reviewers comments from M.Tovo, M.Barton-Dock, D.Sellen and A.Brizzi.
PCD Review Meeting Comments from JC de Daruvar, R.Verspyck, A.Sow, A.Schliessler, E.Huybens.

C. Other

Letter of Endorsement from GEF Focal Point (September 2002)
GEF PDF-B Preparation Approval
« Etude d'impact socio-environnementale » (November 2002)
« Etude de faisabilité du PROADEL » (June 2003)
« Etude de l'approche participative en zones pastorales » (March 2002)

*Including electronic files

Annex 7: Statement of Loans and Credits

CHAD: Local Development Program Support Project 24-Sep-2003

ID	Description	Original Amount in US\$ Millions				Difference between expected and actual disbursements ^a	
		IBRD	IDA	Cancel.	Undisb.	Orig	Frm Rev'd
2003	ION SECTOR REFORM PROJECT	0.00	19.13	0.00	44.86	0.00	0.00
2003	L ELEC & WATER Services	0.00	54.80	0.00	47.94	3.78	0.00
2002	Population and AIDS Project	0.00	24.56	0.00	20.65	2.48	0.00
2001	Transp. Program Support Project	0.00	67.00	0.00	47.99	27.45	0.00
2000	STABILIZATION OF THE PETROLEUM ECONOMY	0.00	17.50	0.00	6.71	2.31	0.00
2000	SECTOR SUPPORT PROJECT	0.00	41.51	0.00	25.78	19.73	0.00
2000	BLDG. PETROLEUM	0.00	23.70	0.00	7.34	9.91	0.00
2000	PIPELINE	39.50	0.00	0.00	10.39	-4.28	0.00
1998	BEHOLD ENERGY	0.00	5.30	0.00	0.61	0.46	-4.01
Total:		39.50	253.50	0.00	212.27	61.85	-4.01

CHAD
STATEMENT OF IFC's
Held and Disbursed Portfolio
June 30 - 2003
In Millions US Dollars

FY Approval	Company	Committed IFC				Disbursed IFC			
		Loan	Equity	Quasi	Partic	Loan	Equity	Quasi	Partic
2002	Finadev Tchad	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00
2000	TOTCO	13.90	0.00	0.00	13.90	13.90	0.00	0.00	13.90
Total Portfolio:		13.90	0.17	0.00	13.90	13.90	0.00	0.00	13.90

Approvals Pending Commitment

FY Approval	Company	Loan	Equity	Quasi	Partic
2002	Finadev Tchad	0.00	0.00	0.00	0.00
Total Pending Commitment:		0.00	0.00	0.00	0.00

Additional Annex 8: PIDR Framework CHAD: Local Development Program Support Project

Plan d'Intervention pour le Développement Rural (PIDR)

Programme 1 DÉVELOPPEMENT LOCAL

S-P 1.1: DEVELOPPEMENT LOCAL

- ❖ Transfert aux bénéficiaires des décisions concernant:
 1. planification locale du développement
 2. infrastructures (pistes, écoles, puits,...)
 3. préservation du potentiel productif
 4. gestion concertée de l'espace rural
 5. ...
- ❖ Renforcement des capacités locales : formation aux fonctions de maîtrise d'ouvrage pour la gestion et le contrôle, assistance à l'émergence des capacités techniques. (AT, études, échanges...).
- ❖ Appui aux processus de décentralisation

S-P 1.2 AMENAGEMENT DE L'ESPACE RURAL

(en transition ou préparation vers le développement local)

- ❖ Rattrapage/mise à niveau des infrastructures dans les zones déficitaires ; interventions de type sectoriel (transports, hydraulique villageoise, pastorale et agricole, santé, éducation)
- ❖ Aménagements prioritaires au niveau régional (préparation de la zone à l'approche développement local)
- ❖ Gestion concertée de la ressource naturelle (intégration progressive dans le développement local)
- ❖ Développement rural intégré

S-P 1.3: ACTIONS D'INTERET GLOBAL

- ❖ Protection et restauration de la biodiversité
- ❖ Parcs nationaux et et aires protégées

Programme 2 RENFORCEMENT DES CAPACITES SECTORIELLES

S-P 2.1: APPUI INSTITUTIONNEL AUX DEPARTEMENTS MINISTERIELS

(Niveaux centraux et déconcentrés)

- ❖ Appui permettant à l'Etat de remplir ses fonctions régaliennes
 1. définition des politiques sectorielles et des axes stratégiques, dont foncier, préservation de l'environnement, LCD, fertilité, sécurité alim.
 2. cohérence des politiques du secteur rural avec celles des autres secteurs (transport, santé, éducation...).
 3. élaboration de prises de position dans les enceintes régionales et internationales.
 4. actualisation des textes réglementaires et respect de leur application
 5. appui à la conception du service public en matière de vulgarisation, recherche et formation agricoles ;
 6. collecte et gestion de l'information sectorielle de base (statistiques, SIM, observatoire des filières, recensements sectoriels...)
- ❖ Développement des ressources humaines
- ❖ Mise en place des organes de concertation (Etat + OP au minimum)

S-P 2.2: APPUI AUX ORGANISATIONS PROFESSIONNELLES ET AU SECTEUR PRIVE

- ❖ Appui à l'autopromotion des OP (structuration, représentation, expression des besoins, positionnement dans les instances de concertation et pilotage, aspects syndicaux...).
- ❖ Appui à la réalisation d'investissements productifs
- ❖ Appui au développement des filières

S-P 2.3: APPUI AUX SERVICES DU SECTEUR RURAL

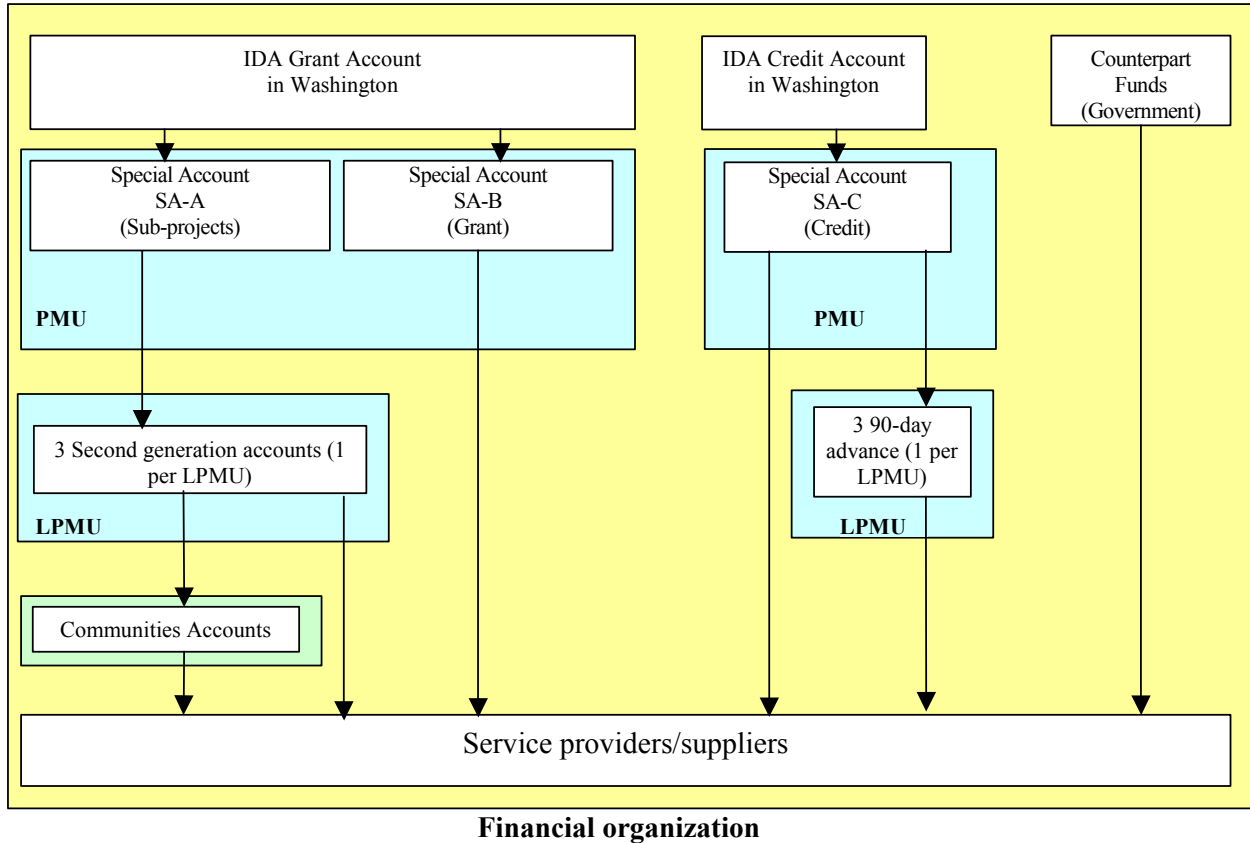
- ❖ Appui au développement des activités privées répondant aux besoins des producteurs : centres de gestion, prestation de services divers, conseil, formation...
- ❖ Appui spécifique aux activités qui relèvent des services publics (Recherche, Vulgarisation et Formation)

S-P TRANSVERSAL 1 : APPUI A LA MICROFINANCE

- ❖ appui au développement et au renforcement des institutions de microfinance ;
- ❖ appui à la constitution d'une offre permanente de services au profit des institutions de MF ;
- ❖ appui à la mise en place d'outils financiers professionnels pour permettre l'articulation avec le secteur bancaire.

S-P TRANSVERSAL 2: SUIVI DU SECTEUR

**Additional Annex 9: [Implementation arrangements]
CHAD: Local Development Program Support Project**



Synthesis table of the different reports communication pathways

MES : Monitoring and Evaluation Specialist ;

Report	Person in charge	Addressees
Monthly Report	MES	RSE Accountant UGP Other members MES Accountant UGL other members Donors MES
Monthly implementation statement	MES accountant MES accountant	Donors MES
Quarterly report	MES	Publication to the public
Quarterly report	MES	MES
Intermediary report	MES	Donors
Annual report	MES	Different persons in charge of the tasks
Activities report	MES	Donors
Annual working plan	MES	Implementation Agencies
Technical and financial follow up dockets	Director	Donors Attached to payment requests

**Additional Annex 10: [Multi-sector Assessment]
CHAD: Local Development Program Support Project**

1. Sector matrix

	Infrastructure	Education	Health	Water
Strategic Context	National strategy adopted by the GOC for 2000-2009 with the objective to increase paved and unpaved roads and to improve maintenance quality. No comprehensive rural transport strategy.	National strategy adopted by the GOC with the objective to provide education to everybody in 2015.	The GOC has laid out a <i>Programme d'Appui au Secteur de la Santé</i> (PASS) which is supported by several donors. The PASS will concentrate on health center rehabilitation (buildings, trainings, medicine) and construction.	National strategy adopted by the GOC with the objective to give everybody access to safe water in 2020.
Diagnostic	Degraded and limited road network with 300 km full paved roads out of a 40,000 km network (national network of 6,200 km).	Enrollment rate is 57% for children between 6 and 11 years. Among 3653 primary schools, 3100 are in rural areas and 56% of teachers are informal community instructors, supported by parents. Classroom deficit is estimated at 18,000.	The health system is organized in 14 <i>Délégations Préfectorales</i> , 54 <i>Disctricts</i> (38 with a hospital) and 700 <i>Zones de responsabilité sanitaire</i> (600 with a health post). Lack of human resources is the main issue with 66% to 75% unfilled doctor and nurse positions.	The average percentage of the population with safe access to water is 30%, with a rate of 750 inhabitants per water point .Most of the pumps are dysfunctional due to a lack of local operators.
PROADEL related WB-Projects	<i>Projet d'Appui au Programme National des Transports</i> (PAProNAT) which will support the GOC in his rural transport strategy definition.	The Education Reform Project (ERP) will ensure that the framework for quality universal primary education is in place and ready for implementation.	WB supports the PASS in 5 <i>Préfectures</i> and also supports a population and AIDS project that includes an AIDS-related social fund (FOSAP).	None
Synergy with PROADEL	In the coming months the PAProNAT will a rural transport strategy in the three departments where PROADEL begins its implementation. This strategy will be used by PROADEL to address communities' infrastructure requests.	The total need of classrooms won't be met by current projects and PROADEL can bring additional resources. Additionally, the low enrollment rate for girls is an issue PROADEL can address through capacity-building activities. PROADEL could also support the community instructors.	PROADEL might concentrate on rehabilitating existing centers (providing equipment, medicine, trainings), instead of building new health posts, as human resources would be lacking. PROADEL can bring capacity building support: HIV-AIDS prevention information,	PROADEL will identify needs, make sure that requests are registered by the <i>Division de l'Hydraulique</i> and see to how the request might be addressed (by a sector project or by PROADEL). PROADEL could also strengthen the capacities of

			healthy behavior information, etc.	communities to improve infrastructure maintenance.
Issues	There is no maintenance policy for rural roads.	Prior to classroom construction approval, deconcentrated line ministries must be consulted. Technical eligibility criteria must be consistent between the PROADEL and the ERP.	The MS must authorize new health center construction.	The Rural Water and Sanitation Sector is strongly supported by other donors and PROADEL should focus on needs assessment and capacity-building, instead.

2.PROADEL and WB-PTMR (assessment summary)

Background

The 40,000 km road network includes 12,700 km national/regional roads and 27,300 km local roads. Most of them are deteriorated and out of the 12,700 km, only 300 km are fully paved. Under the “Roads Normalized index,” Chad has been rated 21%. The non-availability of year-round transport has also created many rural enclaves, where the high cost of transport hinders the inflow of inputs and consumer goods, while hampering the outflow of production to food-deficit regions and urban centers. Studies showed that transport costs can represent as much as 70% of marketing costs.

The GOC has elaborated a National strategy for the Transport Sector and a 2000-2005 National Transport Program with the following objectives: (i) improving the network quality, (ii) increasing reliable year-round network, (iii) increasing the share supported by the GOC, (iv) improving sustainability of infrastructure through better management and maintenance and (v) continuing liberalization of the transport sector. But there is no comprehensive strategy for rural transport.

The Bank supports 15% of the National Transport Program through the National Transport Program Support Project (PAProNAT), the remainder being financed by other donors and the GOC. The PAProNAT became effective in March 2001. It includes several components, among them a support to the GOC in defining a rural transport strategy. This strategy will seek to contribute to improving rural livelihood in Chad, by facilitating access of the rural population, which is mostly poor, to markets and to economic and social goods and services. This activity was planned to be completed in December 2003.

Synergy and collaboration between PROADEL and PAProNAT

The departments where PROADEL will be launched first, will become the implementation zones for the rural strategy. This will be completed in three phases:

- First phase (four months): an interim strategy for rural transportation will be elaborated for Bahr El Gazal, Dababa and Mandoul and will include necessary technical, institutional and financial data for its implementation;
- Second phase (ten months): (i) monitoring and evaluation of PROADEL implementation regarding rural transport micro-projects co-financed by the project, (ii) complementary studies on technical, institutional and financial aspects and (iii) baseline for a rural strategy in the other departments concerned by the PROADEL phase 1.

- Third phase: completion of the rural strategy.

The regional roads needs have been estimated for the three departments as follows: rehabilitation of 653 km in the department of Mandoul, of 230 km in Dababa and signing of 502 km in Bahr El Gazal. Total cost for these works, studies, periodic maintenance and day-to-day maintenance will be around 10.5 millions USD. The works, studies and periodic maintenance would be supported by the GOC (through donors) and day-to-day maintenance by the beneficiaries, which would have to organize management and maintenance committees.

3.PROADEL and WB Rural Water Strategy

The Rural Water and Sanitation sector is strongly supported by many donors in Chad (AFD, EU, KFW, BADEA, Saudi Fund, UNICEF, UNDP...), that finance construction and rehabilitation of water points and support institutional and policy reforms. Over the 2000-2003 period, 13 projects, for a total amount of US\$ 68 million, are ongoing, covering all regions of the country, which represents about 1,000 new water points equivalent and 450 rehabilitations per year. For the coming years, several projects are already under preparation for a total amount of at least US\$ 61 million.

However, several areas of the RWSS sector policy need improvement to ensure a greater impact and a better sustainability of the investment. These areas include participation, gender inclusion, hygiene and environmental sanitation, promotion of local enterprises, long-term follow up, water supply and sanitation in semi-urban areas and local government involvement in the planning process and long term monitoring.

Possible Scope of RWSS Intervention for PROADEL

Given the wide availability of financing for the RWSS sector projects and the above mentioned gaps in the sector, PROADEL will focus on:

- Identifying the demands for potable water from the rural communities, through the participatory process,
- Ensuring a greater community participation, including gender issues in the decision-making process,
- Preparing the communities to better understand the interest and constraints of such investment, in particular in terms of management and sustainability,
- Ensuring and monitoring that communities requests for water, mentioned in the Local Development Plan (LDP), will be taken into account by the Directorate of Water in the programming of the rural water supply projects,
- Emphasizing hygiene and environmental sanitation aspects through specific sensitization campaign, training and promotion of local operators,
- Strengthening capacity of communities to manage on a long term basis such infrastructure, and local governments in order to ensure long term follow up.

The above approach offers the advantage of applying the CDD concept to the RWSS sector while keeping new investment in the framework of the sector policy and national technical standards. This will guarantee the quality of works, a lower cost investment for the country as well as for communities, and ensure a better framework for the sustainability of water facilities.

It is also proposed that, in case the water-supply sector projects would not be able to respond to the demand of the communities within a reasonable timeframe, PROADEL would identify at that time an implementation alternative consistent with the sector policy.

Additional Annex 12

Root Cause Analysis

This section outlines in greater detail the environmental threats and socio-economic barriers to advance global environmental protection in Chad. These issues are sub-divided by socio-economic context and environmental root causes by major geographical region. The project design reflects measure to address these environmental challenges in each of the ecological zones.

a. Sudanian zone

Socio-economic context, issues and root causes. Three million inhabitants, mainly rural small-holders, live in this zone, representing 40% of the country's population on 10% of the land. The zone corresponds roughly to the southwestern regions of Mayo Kebbi, Tandjile, Logone Occidental, Logone Oriental, and Moyen Chari. Population density averages 20-30 inhabitants per km², but some agricultural areas have up to 60-100 inhabitants per km² and are reaching saturation. Both local farmers and transhumant herders raise livestock in the area. Shifting agriculture is still largely practiced, but fallow periods are increasingly short and soil fertility can no longer be adequately maintained with these methods. The Sudanian zone is currently Chad's main agricultural area for both food and cash crops. Though marked variations are discernable from west to east, the agricultural situation is basically characterized by very low productivity, due to low soil fertility, unreliability of rainfall, lack of equipment, lack of credit for inputs, high marketing costs due to poor rural infrastructure, weak producer organizations, and lack of effective leadership from government. These issues will be addressed within the PIDR mainly through the Program of Support to Agricultural Services and Producer Organizations (ASPOP).

Environmental context, issues and root causes. This zone contains a variety of ecosystems ranging from the riverine gallery forests and seasonally flooded swamplands in the upper reaches of the Chari-Logone river system, to the wooded savanna of the great plains and, at its southern extremity, the equatorial forest bordering the Central African Republic. Rainfall ranges from 900 to 1200 mm annually. Because of the diversity of ecological niches, this zone also exhibits a high diversity of bird and fish species as well as of reptiles and mammals. The National Park of Manda (which is expected to benefit from support under a UNDP-implemented GEF project) is located in this zone, in the department of Moyen Chari. All of the Chad's ten classified forests are found in this zone, as well as the wildlife reserve of Binder Léré (currently benefiting from support under the German-financed PCGRN). Soil exhaustion and environmental degradation are critical issues in a growing number of departments in the center and north of this area. Generally this results from a short-term strategy of extensive farming with no investment in techniques of soil regeneration and preservation. When the soil is exhausted people move on to seek new land to convert to agricultural use. In a region where demographic pressure is increasing, the last available areas of natural vegetation (marshes, prairies, but particularly woodlands) are being cleared, precipitating widespread degradation of the ecosystem, loss of native plants and animals, and introducing the threat of future desertification. This pattern will soon become impossible to maintain as new areas become rapidly depleted in their turn. Population pressure encourages encroachment on protected areas, both for collecting natural resources and for clearing and planting crops. The UNDP-GEF project for the Park of Manda (Moyen-Chari), as well as the ongoing GTZ project in Mayo Kebbi, will help to address this issue.

b. Sahelo-Sudanian zone

Socio-economic context, issues and root causes. This zone corresponds roughly to the regions of Chari Baguirmi, Guera, and Salamat, containing about 3 million people (40% of the population), including about 1 million in the capital city of N'djamena, and representing 15% of the land. The rural economy of the central region of Chad is based on three mainstays: livestock, cereal production and gum arabic. Access to water determines land use and the lack of permanent surface water accounts for the under-exploitation of many areas in the central and eastern part of this zone. Large areas with agricultural potential remain available, mainly in the departments of Salamat and south Guera, allowing farmers and herders to currently cohabit without major conflicts. The soils in this area have thus been spared from depletion and yield substantial cereal harvests. The eastern part of this zone is hilly to mountainous, with seasonal flooding in low-lying areas which offer much untapped potential for agriculture, especially for post flood cultivation. Livestock rearing in this area is mainly based on transhumance. Finally, the gum arabic industry is profitable and expanding. A growing international market for gum arabic, "Talla", which is produced by *Acacia seyal*, presents further development opportunities, and also promises greater security in the subsistence of nomadic pastoralists who harvest it. However, economic development in the region is hindered by its isolation from the capital and other markets. Other impediments to rural development include low literacy and education levels, due to the difficulty of delivering services, and inadequate support to marketing and business initiatives.

Environmental context, issues and root causes. Annual rainfall in this zone ranges from 600 to 800 mm. In the western part of the zone, agriculture flourishes in the lower Chari-Logone basin flowing into Lake Chad. The wildlife reserve of Mandelia (Chari-Baguirmi) borders on the Logone and is not far from the Waza Park in Cameroon; to the north is the hunting reserve of Douguia. There are two more wildlife reserves in Guera (Abou-Telfane and Siniaka Minia). On the border between Guera and Salamat lies the National Park of Zakouma, surrounded by the game reserve of Bahr Salamat. Southeast of the Bahr Salamat game reserve, a hunting reserve (Reserve of the Aouk) extends to the Central Africa Republic border. While the Government of Chad has not been able to provide strong protection to these areas, their remoteness and difficulty of access suggest that important populations of African wildlife, including threatened and endangered species, may remain. The Sahelo-Sudanian zone offers good prospects for establishing a diversified agricultural economy. Gum arabic harvesting from wild trees has proved sustainable at relatively low rates of offtake; should pressure on the resource increase, commercial cultivation of *acacia seyal* is also a feasible solution. The zone is highly likely to attract immigrant populations from other areas in the future, leading to increased pressure on biodiversity and ecosystems in the longer run. Soil erosion in hilly areas, and water management, especially groundwater, will be additional issues of concern. It will be important to introduce rules, mechanisms and capacity for participatory planning of land use, involving multiple ethnic groups, in order to ensure sound economic progress that takes into account the conservation of biodiversity and functioning ecosystems.

c. Sahelian zone

Socio-economic context, issues and root causes. The Sahelian zone is made up of the regions of Lac, Kanem, Batha, Ouaddai, and Biltine. Its population is estimated at 1 million (13% of the population) and its territory covers 30% of the land. The Sahelian zone is predominantly pastoral and its economic activity is characterized by nomadic movements of herders in search

of food and water for their livestock. The full agricultural potential of this area is underused (pastures, polders, wadis), notwithstanding the major limitation imposed by the scarcity of water. Demographic pressure has not reached critical thresholds, although there is mounting tension between nomadic and sedentary groups, mainly over access to water points. In addition to the limits imposed by availability of water, rural development is hindered by the area's isolation (poor transport and communications networks) and lack of services (very low living standards, poor education and health coverage including veterinary services, a dearth of banking structures). As a result the informal sector predominates, the private sector is weak, and levels of organization are low among stakeholders in the agricultural sector. Climatic factors also narrow the region's growth horizon.

Environmental context, issues and root causes. Rainfall in this area ranges from 200 to 400 mm annually. Average temperatures range from 35 to 40 degrees Centigrade (95 to 105 degrees Fahrenheit). Hot, dry winds blow across the land bringing desiccation and incipient desertification in their wake. The region contains the Chadian portion of Lake Chad, as well as the Biosphere Reserve of Lake Fitri (Batha), in addition to significant untapped groundwater resources in the west. To the east, however, groundwater disappears under granitic formations, and crop cultivation is only possible in oases, which form unique, highly productive ecosystems. The ecology is fragile: droughts, erosion, deforestation, and bush fires in the west all threaten the viability of the rangeland vegetation and the animals, both wild and domestic, including humans, that depend on it. This zone possesses the largest game reserve in the country, that of Ouaddi Rimé-Ouaddi Achim (80,000 km²), covering the northern third of Batha department and extending into Kanem to the West, Biltine to the east, and Borkou-Ennedi-Tibesti (Saharan zone) to the north. The reserve is home to a variety of gazelles, including the threatened oryx and addax. Lake Chad and Lake Fitri contain numerous fish species and provide important habitat to migrating birds. A GEF project in preparation will assist the four countries who share the Lake Chad basin in introducing sustainable resource management practices in communities that depend upon the lake.

Major global environmental threats and root causes

Desertification and irreversible loss of biodiversity represent two major environmental threats in Chad. The seriousness of these threats is mounting and their socioeconomic effects are becoming increasingly evident.

- *Desertification: a major issue that could worsen with development.* Chad has been a major victim of desertification, soil degradation, deforestation and decline in the quantity and quality of water resources over the last thirty years (at least). Around the main urban centers (N'Djamena, Ati, Abéché, and Bongor, for example), "halos" of desertification and deforestation can be clearly seen on satellite images, resulting from excessive wood cutting for charcoal and construction materials. This activity not only reduces biomass but also adds to the carbon emissions released by wood burning. The lack of development to date in Chad has helped to preserve the remaining resources, but development cannot be denied. As explained above, the politico-socio-economic conditions are ripe for development, and it is now necessary to consciously integrate conservation and sustainable resource use in development programs. Chad has long recognized its dependence on natural resources and has made it a strong policy to include environmental concerns which will be a precious pre-requisite now that strong development is expected.

- *Irreversible loss of biodiversity.* According to WCMC, 6 animal species are currently critically endangered (among which the addax, the northern white rhinoceros and the black rhinoceros), 6 endangered (among which the Addra and Rhim gazelle, the giant otter and the elephant) and 16 vulnerable, while 1 is now extinct in the wild (the Sahara oryx). In the Saharan zone, natural migrations of addax and oryx have been disturbed by poaching and the effects of drought on their food and water supply. In the Sahelian zone, elephants and ostriches have almost disappeared due to the loss of vegetation in temporary streams and overgrazing by small ruminants. In the Sudano-Sahelian zone, feline populations (lions and panthers) and large antelopes (Derby Elands) are disappearing due to increased human pressure on their habitat. In the Sudanian zone, where buffalos, giraffes and rhinoceros are threatened, unique vegetal associations combining woody species, shrubs and grasses are found in great variety in the different biotopes of this zone but are increasingly threatened by expanding agricultural activity. In addition, poor management of fish resources has led to the near-disappearance of certain fish species (eels, *capitaines*, etc.) due to overexploitation and water pollution.

Summary table of major causes to threats, linkages with development issues, actors involved.
In order to distinctly put into evidence the major causes of the threats to the global environment, so as to build the GEF alternative accordingly, the following table has been elaborated. This table summarizes elements gathered from the BSAP, the NEAP, the PIDR and the Rural Development Strategy.

Major causes	Linkages with development issues	Main actors involved (in addition to beneficiaries, local populations, and NGOs that are systematically involved)
Threat 1: desertification (includes land degradation, erosion, degradation of surface and groundwater resources, loss of biomass, declining of soil fertility, etc.)		
Use of inappropriate farming techniques (slash and burn agriculture, bushfires, short fallow periods...): no integrated approach to ecosystem management	<ul style="list-style-type: none"> • Low levels of government support (insufficient technical support) I, L • Lack of access to farm equipment and credit T • Cotton monoculture T • Low levels of private investment I • Sociocultural factors (land tenure, gender...), conflicts between traditional and modern authorities S, L • Lack of rural infrastructure I • Declining agricultural yields T • Weak producer organizations T, I • High illiteracy and low levels of education T, S • Weak decentralization L • Migration of populations in search of employment and/or displaced by political instability S 	<ul style="list-style-type: none"> • Ministry of Economic Development and Land Use Planning • Ministry of Agriculture • Ministry of Livestock • Ministry of Environment • Ministry of Interior and Decentralization (for the ministries, decentralized services have a major role to play) • Producers Organizations • Research institutes (national / regional / international): Agrhymet, PRASAC, etc.
Intense rainfall and/or high winds	<ul style="list-style-type: none"> • Insufficient technical support T 	<ul style="list-style-type: none"> • Ministry of Environment
Overgrazing (poor transhumant routes management)	<ul style="list-style-type: none"> • Low levels of government support (insufficient technical support) I, L • Farmer/herder conflicts S • Land tenure framework insufficient S, L 	<ul style="list-style-type: none"> • Ministry of Livestock • Producers Organizations
Deforestation (fuel wood mostly)	<ul style="list-style-type: none"> • No alternative to wood energy proposed T 	<ul style="list-style-type: none"> • Ministry of Environment / of Energy • Project "Household Energy"

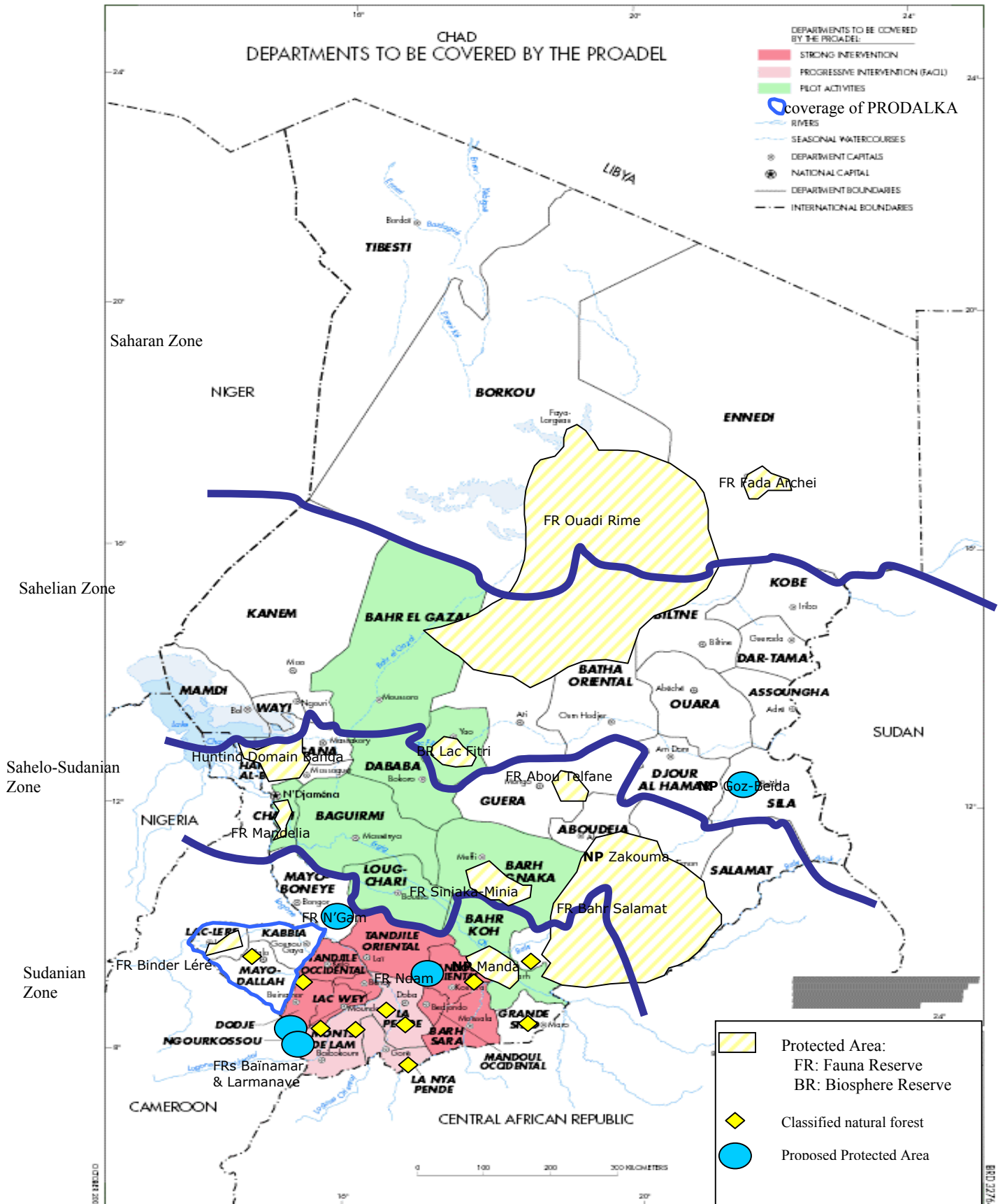
Uncontrolled water extraction	<ul style="list-style-type: none"> • Land tenure framework S, L • Insufficient technical support T • No control in the field I 	<ul style="list-style-type: none"> • Ministry of Environment and Water (<i>Direction de l'Hydraulique</i>) • Ministry of Livestock (<i>DOP</i>) • Water Companies (<i>STEE</i>)
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Threat 2: loss of biodiversity (includes loss of natural habitats)

Poaching	<ul style="list-style-type: none"> • Traditional food and hunting habits S • Conflict between PA staff and local communities S • Difficulties to enforce regulations I, L 	<ul style="list-style-type: none"> • Ministry of Environment • PA management staff
Weak biodiversity management (PA often "paper parks")	<ul style="list-style-type: none"> • Low capacity of staff I • Lack of information on wildlife T 	<ul style="list-style-type: none"> • Ministry of Environment • PA management staff • CNAR (Centre National d'Appui à la Recherche)
Conflicts wildlife with agriculture activities: no integrated approach	<ul style="list-style-type: none"> • Overgrazing T • Extensive agriculture S, T • Low levels of government support (insufficient technical support) I, L • Land tenure framework insufficient S, L 	<ul style="list-style-type: none"> • Ministry of Agriculture, Livestock, Environment (for the ministries, decentralized services have a major role to play) • Producers Organizations
Use of inappropriate fishing techniques	<ul style="list-style-type: none"> • Low levels of government support (insufficient technical support) I, L • Lack of access to equipment and credit T • Weak producer organizations T, I • High illiteracy and low levels of education T, S • Weak decentralization L 	<ul style="list-style-type: none"> • Ministry of Agriculture • Ministry of Livestock • Ministry of Environment (for the ministries, decentralized services have a major role to play) • Producers Organizations
Deforestation (fuel wood mostly)	<ul style="list-style-type: none"> • No alternative to wood energy proposed T 	<ul style="list-style-type: none"> • Ministry of Environment / of Energy • Project "Household Energy"
Demographical pressure	<ul style="list-style-type: none"> • Migration of populations in search of employment and/or displaced by political instability S • Cultural features S 	<ul style="list-style-type: none"> • Ministry of Interior

Note: issues are sorted in 4 categories: **T**: Technical (includes environmental) / **S**: Socio-Economical / **I**: Institutional / **L**: legal.

Additional ANNEX 13: Departments covered by PROADEL, protected areas and major ecological zones



Additional Annex 14: Summary of Protected Areas in Chad

Name	IUCN Cat.	Area (ha)	Creation date	Biome	Eco-Region
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National Parks

Zakouma	II	300,000	May 7, 1963	H	Sahelo-Sudanian
Manda	II	114,000	Mar 19, 1965	H	Sudanian

Fauna Reserves

Mandéïia	IV	138,000	Oct 7, 1967	W	Sudanian
Binder-Léré	IV	135,000	May 24, 1974	H	Sudanian
Siniaka-Minia	IV	426,000	May 17, 1961	H, W	Sahelo-Sudanian
Aboutelfan	IV	110,000	Oct 2, 1955	H	Sahelo-Sudanian
Bahr Salamat	IV	2,060,000	1964	H	Sudanian
Ouaddi-Achim-Rimé	IV	8,000,000	Mar 10, 1969	A	Sahelian
Fada Archeï	IV	211,300	Oct 7, 1967	A	Sahelian

Biosphere Reserves

Lake Fitri	IV	195,000	Oct 2, 1989	H	Sahelian
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- IUCN Cat.: World Conservation Union Categories
- H: Humid Savana
- A: Arid Savana
- W: Humid environment of fresh water

In addition to these major protected areas

- *are proposed*
 - ♦ 1 national park: Goz-Beïda (300,000 ha)
 - ♦ 5 fauna reserves: Baïnamar (76,000 ha); Larmanaye (88,000 ha); Ngam (77,850 ha); Ndam (94,500 ha) and Yapala (76,000 ha).
- *and do exist:*
 - ♦ 4 domains of controlled hunting: Aoûk (Salamat – 740,000 ha); Douguia (Chari-Baguirmi – 59,400 ha); Ouadi-Haouache (BET – 2,902,500 ha); and Lac-Iro (Moyen-Chari – 1,000,000 ha).
 - ♦ 1 community reserve: Nyala (Moyen-Chari – 10,000 ha);
 - ♦ 10 classified forests: Haut Bragoto (Moyen-Chari – 214,000 ha); Djoli-Kéra (Moyen-Chari – 186,000 ha); Helli-Bongo (Moyen-Chari – 1,254 ha); Siangon-Yamodo (Logone Oriental – 46,000 ha); Dorakigui (Logone Oriental – 250 ha); Timbéri (Logone Oriental – 64,000 ha); Bébo (Logone Oriental – 12,460 ha); Déli (Logone Occidental – 2,340 ha); Lac Wei (Logone Occidental – 350 ha); and Yamba-Bérélé (Mayyo Kebbi– 10,000 ha)

Additional Annex 15: Overview of Main National Environmental Strategies

1. National Environmental Action Plan

This plan, currently in preparation, will be implemented towards June 2003, in the framework of the PIDR after it is adopted by Government and any necessary adjustments made in the National Environmental Policy. The NEAP will define broad strategic principles at the national level. It will be executed on the ground through local village, cantonal and departmental plans which will be developed taking into account the specific requirements of each locality. The NEAP represents an opportunity for systematic analysis of environmental issues, in order to formulate diagnoses and identify strategies and interventions, with their technical, institutional and financial implementation arrangements. The NEAP involves cross-sectoral planning, bringing together ministerial departments and representatives of civil society to formulate and implement strategies to incorporate environmental concerns into all economic and social development activities. The NEAP has four objectives:

1. to integrate environmental concerns into all economic development strategies;
2. to establish long term environmental priorities for the Government, and improve the efficiency of public interventions, so as to reduce duplication of effort and optimize human and financial investments;
3. to establish a collaborative framework for the implementation of PNAE activities jointly by GOC, international partners, and NGOs, and
4. to heighten awareness in all segments of the population, and involve them in sustainable natural resource utilization.

Chad is one of the last sub-Saharan countries to carry out a NEAP, which will enable it to draw from other PNAE experiences in the region.

2. Biodiversity Strategy and Action Plan

The elements of the Biodiversity Strategy and Action Plan are summarized in the following paragraphs, written in November 1998:

a. Development objectives, indicators and assumptions

The development objective of the Biodiversity Strategy in Chad comes from the concern of taking account of the aspirations of the populations and to “negotiate” an objective likely to be reached. In formulating such an objective, one makes the choice to reconcile the objective of conservation with that of development. Instead of denying the latent conflict between the conservation and the exploitation, one integrates it in the strategic approach and one chooses a concerted approach. In other words, the actions of the authorities in charge of the strategy will seek a perfect synergy with those of the populations and other actors in this sector, in particular while supporting and facilitating as much as possible their own initiatives. Doing so, the populations and other actors will in the long term integrate the durable conservation and the management of the living resources in their attitudes, behaviors and initiatives. The introduced or induced improvements will have the chances to sustain itself beyond the specific interventions which will be programmed within the framework of national strategy. With this intention, the development and the implementation of an effective strategy of information education communication including social mobilization, seemed significant transverse needs for each of the five (5) expected outcomes of the national strategy: The

development objective thus formulated as it follows: **sustainable exploitation of biodiversity in Chad**. The indicators formulated for this objective are:

- % of the population which ensures its food safety
- % of the food imports compared to the overall consumption decreases
- Reduction in the distance between great agglomerations and surrounding forests.

The first two indicators would tend to show, in a complementary way, that the resources of the Chadian environment, managed durably, are sufficient to satisfy the national request. A significant assumption being that the demographic growth remains under control. The third indicator could inform about the reduction in the degradation rate of forest resource, because of urban expansion.

b. Specific objective of the strategy, indicators and assumptions

This objective was formulated as follows: **sustainable conservation and management of biological diversity**. It is the objective which the persons in charge for the strategy must guarantee, in the long term. It describes a desirable situation where balance is found between conservation and exploitation of biodiversity. The following indicators were formulated for this objective:

- volume of biomass in Chad increases by maintaining its diversity.
- increase in fauna (surface of the habitats, species, population by species).
- inversion and evolution of the general tendency of degradation of the living resources.

If the results below are assured, the only significant assumptions which could endanger the achievement of the objective of the strategy are:

- safety is not restored durably in Chad.
- political good-will does not exist.

c. Strategic axes

The strategic axes are directions defined to guarantee that the various goals are achieved. For each axis, actions to be carried out were formulated, as well as indicators. These axes are:

- Improved knowledge and monitoring of Biological Diversity. Since biodiversity indicators are constantly changing, a one time census is not adapted. To the existing stock of knowledge, it is necessary to add those acquired continuously through research and studies. The concept of monitoring does not cover only the police-function around the living resources to preserve, but more especially the daily accumulation of information on the evolutions and possible degradations of the elements of biological diversity in order to be able to take suitable measures. The goal is to enable the means of exploiting existing information while focusing on the needs specificities of biodiversity. This process of knowledge management can generate new complementary methods of collection of information which will be centered on definite needs instead of being bound by concerns of exhaustiveness, not easily controllable. The indicators proposed for this axis are: (i) increase in the number of requests with satisfactory answers from the centers and data bases, (ii) increase in the number of articles and scientific publications on Biological Diversity, and (iii) increase in knowledge of the biodiversity populations.
- Ecosystems and species threatened inventoried, preserved and/or restored. This axis addresses more specifically the “conservation” component of the strategy. Even if it appeared that Chad, with its surface of protected areas, almost reached the necessary international standards, much remains to be done to make these protected areas really functional. The examination of the indicators proposed hereafter demonstrates the great

importance of this component of the strategy. The indicators proposed for this axis are: (i) % of the surfaces of protected compared to international standards (quantity, quality), (ii) increase in the endemic species of the fauna and of flora, (iii) some disappeared or disappearing species newly introduced, (iv) reduction in the number of criminal acts (in particular bush fires) in and around protected areas.

- Increased use of substitution resources. This axis will be result from the actions of promotion of substitution resources in order to decrease the anthropogenic pressure. The actions to be undertaken will be: promotion, research, and even subsidy. This question of subsidy has been widely discussed and the workshop considered it necessary to take into account, in spite of the expressed reserves. The Indicators for this axis are: (i) % of reduction in the consumption of wooden energy, (ii) % of increase in the consumption of gas in urban households, (iii) % of increase in the consumption of biogas in rural households.
- Techniques of sustainable exploitation adopted. These techniques refer to agriculture, breeding, fishing, hunting, forest and to all other forms of production or extraction of the biological resources. It aims at either improving productivity, or at decreasing pressure on the nature which provides them, or at collecting in a more selective way, by minimizing losses. The Indicators for this axis are: (i) the fallow period lengthen from ± 2 years in 1998 to X1 in 2003, X2 in 2010, (ii) the average yield of cereals increases from 500 kg/ha in 1998 to X1 in 2003, X2 in 2010, (iii) the number of farmers using agrosylvopastoralism increases, (iv) reduction in itinerant cultures.
- Fair exploitation of the biodiversity. This axis comes from the concern of real partnership with the base: to guarantee a righteous and fair division of biodiversity resources is indeed likely to convince the populations to take part in conservation actions, fostering the concept of collective responsibility as regards to biodiversity conservation. The Indicators for this axis are: (i) reduction of the number of conflicts related to the land use, (ii) increase of the number of peaceful and sustainable accesses to land property, (iii) increase of the surface and number of community-managed forests, (iv) some initiatives of transborder management of the living resources, (v) increase of financial flows of the GEF in favor of Chad.

3. National Action Plan Against Desertification

The National Action Plan to fight against desertification (PAN/LCD – *Plan d'Action National de Lutte Contre la Désertification*) was approved in September 2000 on behalf of the Government by the National High Committee for the Environment (HCNE). The global objective of the PAN/LCD is to combat desertification and to mitigate the effects of drought to sustain agricultural production. Fours specific objectives including their outputs underlie the global objective. The four specific objectives are the following:

1. to protect, restore and develop productive potential to achieve:
 - sustainable agriculture production,
 - sustainable livestock production respectful of environment,
 - protected and enhanced fisheries,
 - urban development policy that sustains town planning respectful of man and the environment.

2. to protect and safeguard very important and threatened ecosystems. This specific objective is directed to Lake Chad, Lake Fitri, the Ouadis, the oasis and the korolands;
3. to build capacities to fight desertification. This objective is secured by developing the human resources of the rural people, the NGOs, and the public agencies. The capacity building will also involve the strengthening of the material and financial means and the readaptation of the institutional and legal framework.
4. to manage risks, to protect the fragility of natural ecosystems and to withstand the uncertainty linked to rainfalls and the uncertainty and the imperfection built into human activities.

The PAN/LCD, part of the PIDR, now needs to be translated into local development plans. Thanks to GEF funding, this could be undertaken during preparation and implementation of the PIDR.

Annex 16: STAP TECHNICAL ROSTER REVIEW
REVIEW BY DR. CIRO GARDI

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Key issues

1. Scientific and technical soundness of the project

Soil degradation process and loss of biodiversity are considered the major threat for the future of our planet. Chad, one of the poorest countries of the world, is facing both of these threats. Deforestation, soil quality degradation and desertification represent a sequence of process that in Chad is exacerbated by the increasing demographic pressure. The unsustainable use of wood fuel and charcoal, and overgrazing are the factors promoting a vicious circle that lead to ecological damages and soil degradation.

Within the main objective of Chad Government to reduce poverty and to promote sustainable development, biodiversity conservation represents the priority of the GEF Project, although other focal areas are involved. The current scientific theory of both ecology and social science seems to be fulfilled. The ecological approach include the preservation of both natural and agricultural biodiversity, including genetic, species and landscape diversity. The social aspects reflect the actual guidelines to promote a participatory mechanism with local communities and to shift towards a decentralized approach to natural resources management.

The GEF intervention will allows better integration of environmental aspects in the ongoing development programs. The need to avoid irreversible environmental damages is essential in a transitional economy, where the change induced by the oil revenues can be very fast. Biodiversity conservation will be achieved through distinct mechanisms operating at two different scales:

- at local scale the co-financing mechanism of sub-project related to biodiversity conservation and support to local community for capacity building;
- at broader scale applying the integrated ecosystem management principles.

2. Identification of the Global Environmental Benefits

Within the sub-saharan region, Chad has unique, globally important ecosystems that are at risk of serious irreversible degradation; furthermore the ecosystem fragility is exacerbated by demographic pressure and land-use conflicts. Even if environment and nature protection is a priority in Chad, the scarcity of governmental resources require an increase in external financing to achieve an effective biodiversity conservation policy. Within this framework the GEF project aims to integrate the environmental issues into the Chad development policy. The environmental benefits deriving from the success of the project are clearly identified and concern mainly biodiversity conservation and soil protection.

3. Fit within the context of the goals of GEF and relevant Conventions

Project fits well within the goals, strategies and priorities of the GEF. It also fits well within the objectives of the Biodiversity, Desertification and Climate Conventions. If Lake Chad and Lake Fitri will be included

in the priority zones also the Ramsar Convention on wetlands will be fitted by the activities proposed in the project.

4. Regional Context

All the proposed activities will be realized within Chad, however the environmental and socio-economic conditions of Chad can be considered representative of the wider area including the sub-saharan countries.

5. Replicability of the project

The fight against desertification, soil and biodiversity conservation and poverty reduction represent common issues for the sub-saharan region and for most countries of the African continent. The possible achievement of these results through a participatory approach, will allow this project to become a model for many African countries

6. Sustainability of the project

The sustainability of the project relies on the progressive integration of donor financing with other financing mechanism, such as:

- ordinary public resources;
- oil revenues;
- subproject beneficiary provision;
- local taxes for natural resources use.
- The long-term risk of PROADEL failure due to the lack of financing has been rated as “medium”

Secondary issues

1. Linkage to other focal areas

This project is a clear case of multi focal activity. Even if it is stated that biodiversity is the priority focal area, many of the proposal activities will improve soil quality, and promote carbon storage in both, soil and biomass. Consequently the project has a clear link with the climate change focal area and to the soil conservation issues. The reduction of wood harvesting and the increase in soil organic carbon stocks, will significantly reduce greenhouse gas emission.

2. Linkage to other programs and action plans at regional or subregional level

GEF activities are adequately linked with other international and national programs in Chad. Special coordination is realized between the first phase of PROADEL project and the GEF that will subsidize incremental activities which will have a positive impact on the global environment. Coordination will be realized also with other ongoing programs in Chad financed by GEF/UNDP, IDA, European Commission, bilateral cooperation. The objectives of the project are in accordance with the National Environmental Plan, Biodiversity Strategy and Action Plan and National Action Plan Against the Desertification.

3. Degree of involvement of stakeholders in the project

The project is based on the Community Driven Development (CCD) approach, according which a strong and effective participation of beneficiary is recommended. All over the project the importance of

strengthening local capacity and increasing stakeholders involvement is emphasized. It is especially under the PROADEL component 1 (Financial support to local development subprojects) and the component 2 (Capacity building for communities) that the importance of participatory approach is stressed. The matching grants of component 1 will be assigned to local community subprojects presented by groups of stakeholders. The management of protected areas and the identification of new priority intervention zones will involve the participation of community leaders and the use of indigenous knowledge.

4. Capacity building aspects

As indicated in the previous paragraph, the project includes many activities to promote and involve the indigenous knowledge and the capacity building, especially with respect to natural resources and protected area management. Specific training and organizational support will improve the skills of communities in the integrated ecosystem management.

5. Innovativeness of the projects

The project presents many innovative aspects:

- coordination between a Community Driven Development approach with the needs of environmental protection;
- large scale application of the integrated ecosystem management;
- possibility to scale-up the project;
- support to decentralization process;
- widespread use of participatory approach and capacity building of local community;
- small, local project co-financing;
- involvement of local communities in the management of protected area;
- use of oil revenues for rural sustainable development;
- sound environmental monitoring system based on GIS techniques and on a set of ecological indicators.